Hyper Vision

DHV-800+/1600+ series

Version 3.41

English

J&S United Technology Corp.

EMBEDDED-LINUX DVR

Linux

Revised Edition
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1. Product Characteristics

■ **Optimum Replacement for Time-lapse Recorder**

Traditional Time-lapse Recorder is a mechanical device. It is very easy to break down after long-term operation and it causes many problems such as: the overly used magnetic heads which cause blurred image; tapes need to be changed often and manually; the recording time is not long enough; the management of recorded tapes is complicated; inefficient when trying to locate the needed data; recording a huge amount of useless images, etc.

HyperVision adopts digital recording technology. The quality of images will not deteriorate with time. With its high compression rate, the storage time can last for months under normal applications. The overwrite operation mode will overwrite the earliest data, and no more tape change is required. Motion detection function will enable the recording only when there is motion of the objective, and makes the system and data retrieval more efficient.

■ **High Reliability**

Normal PC digital surveillance system adopts the MS-Windows OS (Operating Systems). Such kind of system is so often to crash. It usually makes a negative impression which digital surveillance system is unreliable.

HyperVision adopts Embedded-Linux OS. Our advanced embedded technology condenses the entire system into a tiny flash module, which makes the system more reliable. Even when the power fails, the system will re-boot and return to normal operation in less than one minute.

■ **Longer Recording Days**

HyperVision adopts the advanced MPEG-4 compression to store the video images. It allows you to record more data on the same capacity of hard disks.

- **Ease of Operation**

Mouse clicking on the Graphical User Interface controls all the operations. No keyboard is needed so that it is most suitable for the security guards and normal non-IT based users to use.

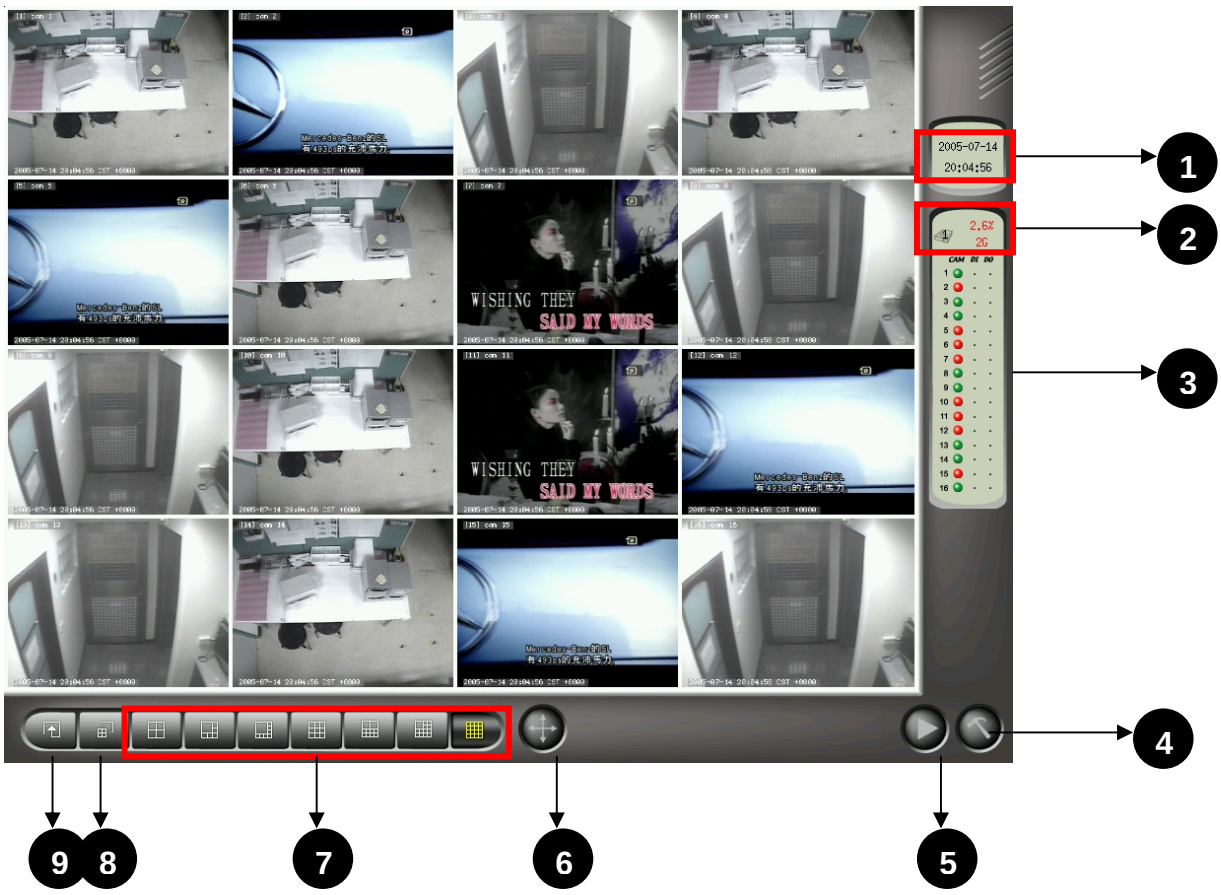
- **Multi-Function**

Function of one set of ***HyperVision*** = Time-lapse Video Cassette Recorder + Multiplexer processor + Motion Detection Processor

You can backup the data to CD-R/RW, remotely monitor the images and still recording the current video data at the same time.

2. Main Screen

After turning on the DVR, launch the DVR program and it will show the following main screen,



The controls in the main screen including:

	Function	Description
1	Date/Time	Display current date and time
2	Storage Space	Indicate the HD free space status
3	Recording/ DI/DO Status	Camera recording status and alarm/sensor input and output status
4	System Setting	Quick access to system configuration
5	Playback	Quick access to playback mode
6	Full Screen Monitoring	Monitor in full Screen
7	Display Mode	Select display divisions
8	Motion to Zoom	Activate zoom function when motion occurs
9	Sequencer	Display in sequence

Note:

Note that whenever you click this button , the system will return to the main screen.

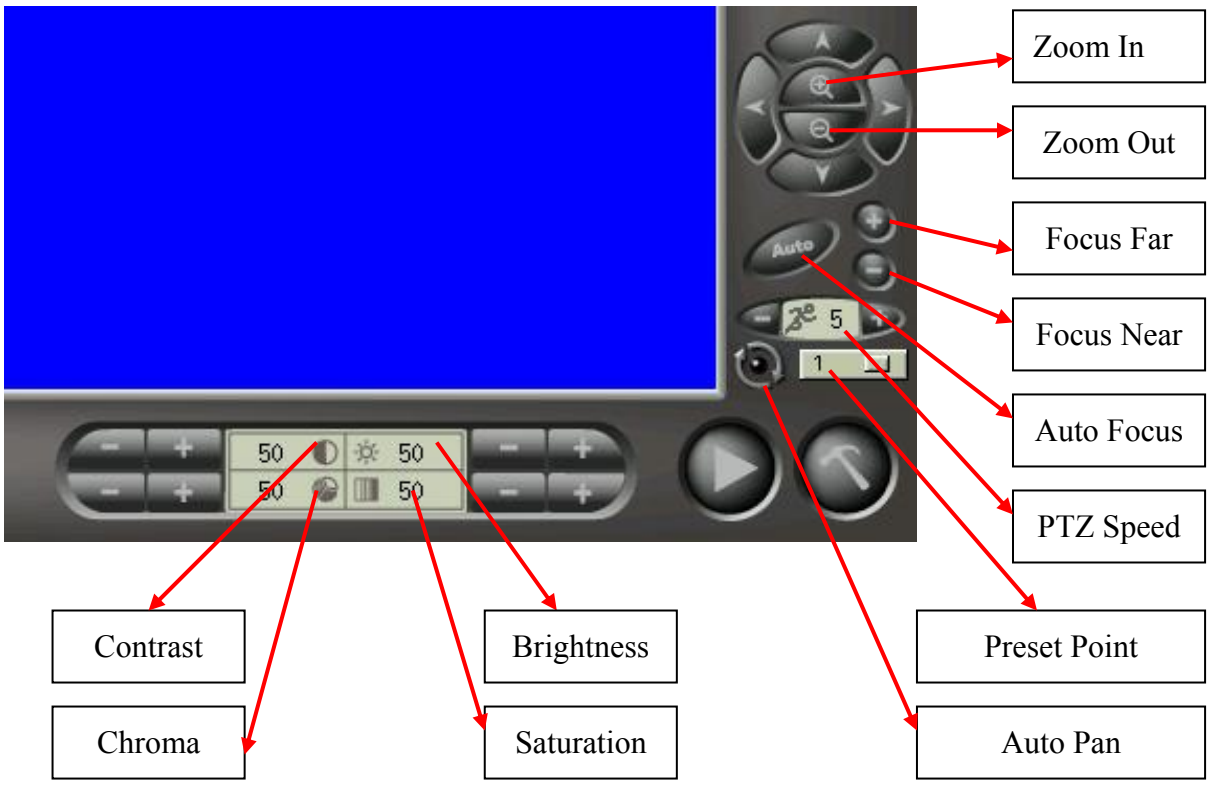
2-1 Display Mode

There are 7 kinds of Display mode, 4 splits, 6 splits, 8 splits, 9 splits, 10 splits, 13 splits, and 16 splits. The default display mode is 16 splits. The cameras displayed on each split mode can be modified in the system setting menu.

Besides the different kinds of split modes, you can click in a camera image on any split screen to show the full screen of that specific camera as shown in the example below.

In the full screen mode the “Screen Adjustment Parameters” will locate at the bottom of the screen. These parameters are “contrast”, “brightness”, “chroma”, and “saturation”.

When a Speed Dome is connected and the system is in full screen mode, PTZ control buttons will pop up in the lower right of the screen. These controls include “Zoom in”, “Zoom out”, “Auto Focus”, “Focus Near”, “Focus Far”, and “PTZ Speed”.



2-2 Motion to Zoom

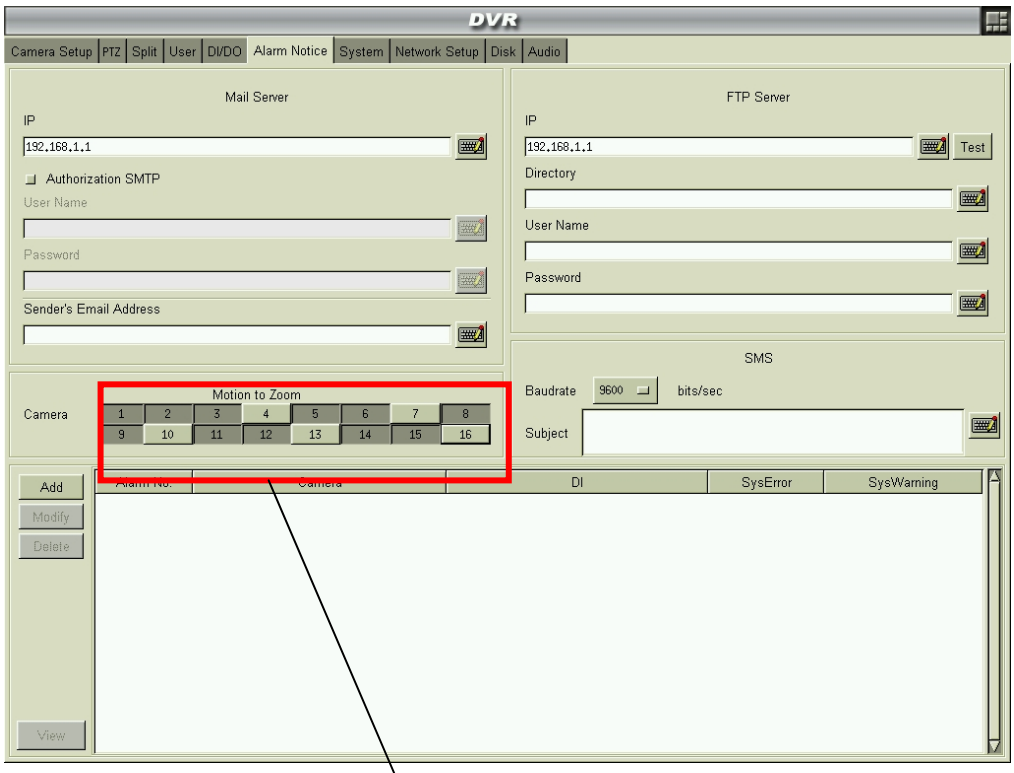
The function of “ Motion to Zoom” is zooming in the screen when there is any motion occurring. After clicking icon, it will activate the “Motion to Zoom “mode.

1. At first, you can go to “ **Alarm Notice**” in **“System Setting”** menu to set up the cameras that you want to enable the “ Motion to Zoom” function and then return to the “**Main Menu**” to click the “ Motion to Zoom” icon.

2. When there is a motion occurring in the channel that is enabled the “ Motion to Zoom” function, the motion will be zoomed in the “ Motion Zooming” area and the original area of this channel will be replaced by a “**Motion Picture”**. If the motion occurs in the channel that is not enabled the “ Motion to Zoom” function, the screen of this channel will not have any reaction and will not be marked in red frame.

3. The motion zooming in the “ Motion Zooming Area” will be kept in three seconds and will be replaced by a new motion happening after three seconds. If there are more than one new motion happening at the same time, the zooming rule will be as following,

a. The previous zooming channel will be the first priority for zooming again and others will be marked in red color to wait for zooming in after three seconds. However, the number of continually zooming the same channel will be limited to three times. After three times, even this channel occurs new motion again and there is also motion happening in other channel, the motion zooming area will show the screen of other channel.
b. If there are not previous zooming channel happening, the first priority for zooming is the channel of which number is the smallest. For example, if channel #3 and channel #7 occur motions at the same time, channel #3 will zoom in firstly in three seconds and the screen of channel #7 will be marked in red color to wait for zooming in after three seconds.



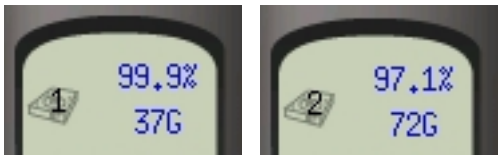
Select the channels you want to enable “ Motion to Zoom” function

2.**Zooming in a specific channel:** You can decide just to zoom in a specific channel. When clicking any channel you want to zoom in, the screen of this channel will be zooming in to the “Motion Zooming” area marked in **yellow** color frame and the original area of this channel will

be replaced by a **“locked Picture”**. Then, the screen of other channels, even occurring motion, will not be zoomed in “Motion Zooming Area” and it will be just marked in red color frame. You can click the “ Motion Zooming Area” to cancel the “ Zooming in a specific channel”.

2-3 Storage Space

On the right side of the main screen, you can find the free space of hard disks. If there are more than one hard disk is connected, it will display the status of each HD every 5 seconds.



When you start using a new hard disk (for example, a hard disk with capacity 80GB), the percentage of free space will be very close to 100% (e.g. 99%), and the color will be **BLUE**.

However, as recording continues, the available space will diminish. When the remaining available space is less than **4GB**, the display color will change to **ORANGE**. This serves as a warning message that the system will soon enter the **Recycle Mode**; which means, the earliest recorded data will be replaced by the newest recording data. If you would like to keep all the data, this is the time to swap a new hard disk.

If the disk has not been changed and the recording continues, the system will go into **Recycle Mode** when the hard disk free space is less than 1GB. The color of "Hard Disk Free Space" will turn **RED**.

2-4 Recording & DI/DO Status

The first column indicates the recording status of each camera:

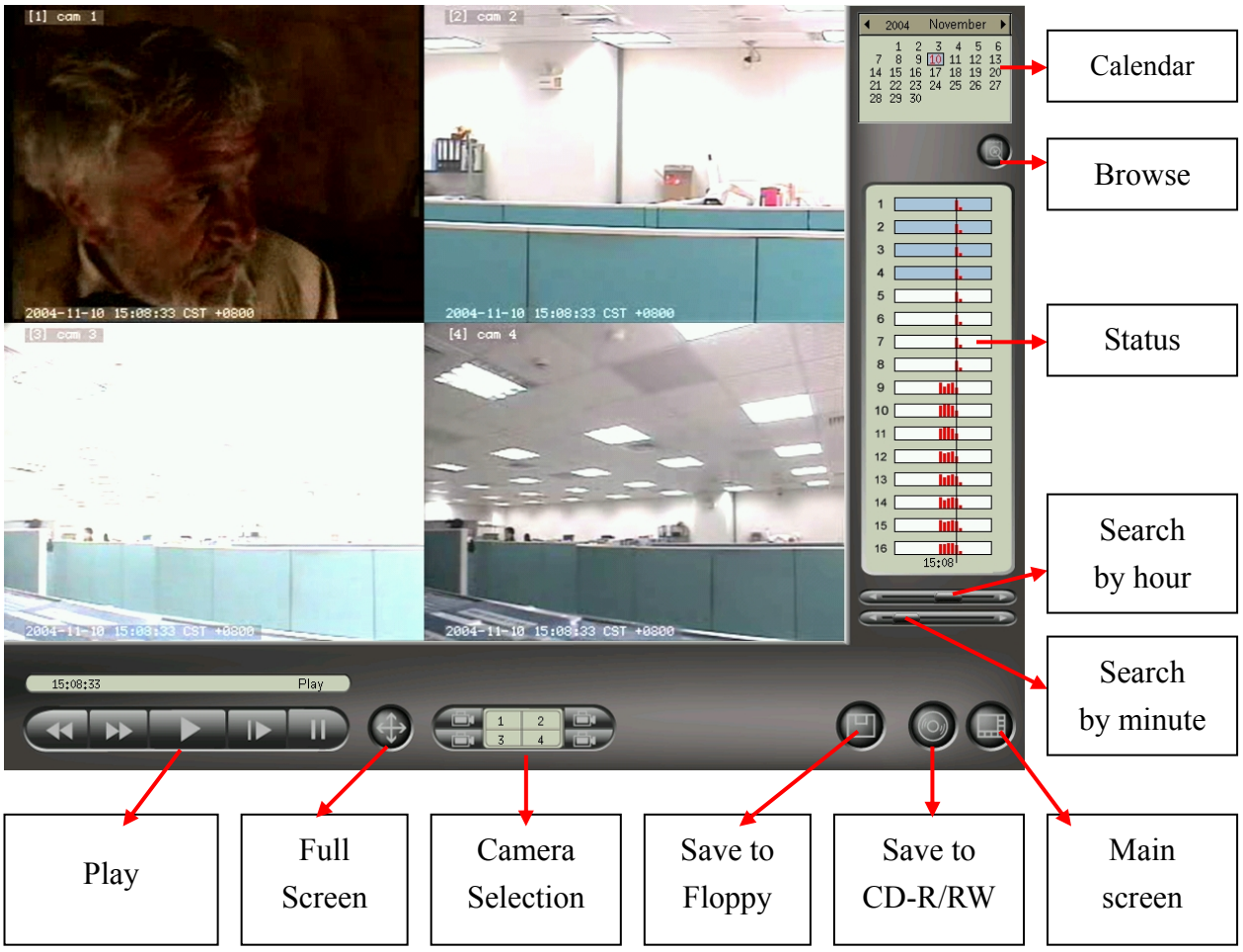
Color	Recording Mode	Status
Orange ( )	Full recording	
Green ( )	Motion-sensor	Motion not detected
Red ( )	Motion-sensor	Motion detected & recording
Gray ( )	No recording	

The second and third column shows the status of each DI and DO device.

Color	Status
Green ( )	Device not activated
Red ( )	Device activated

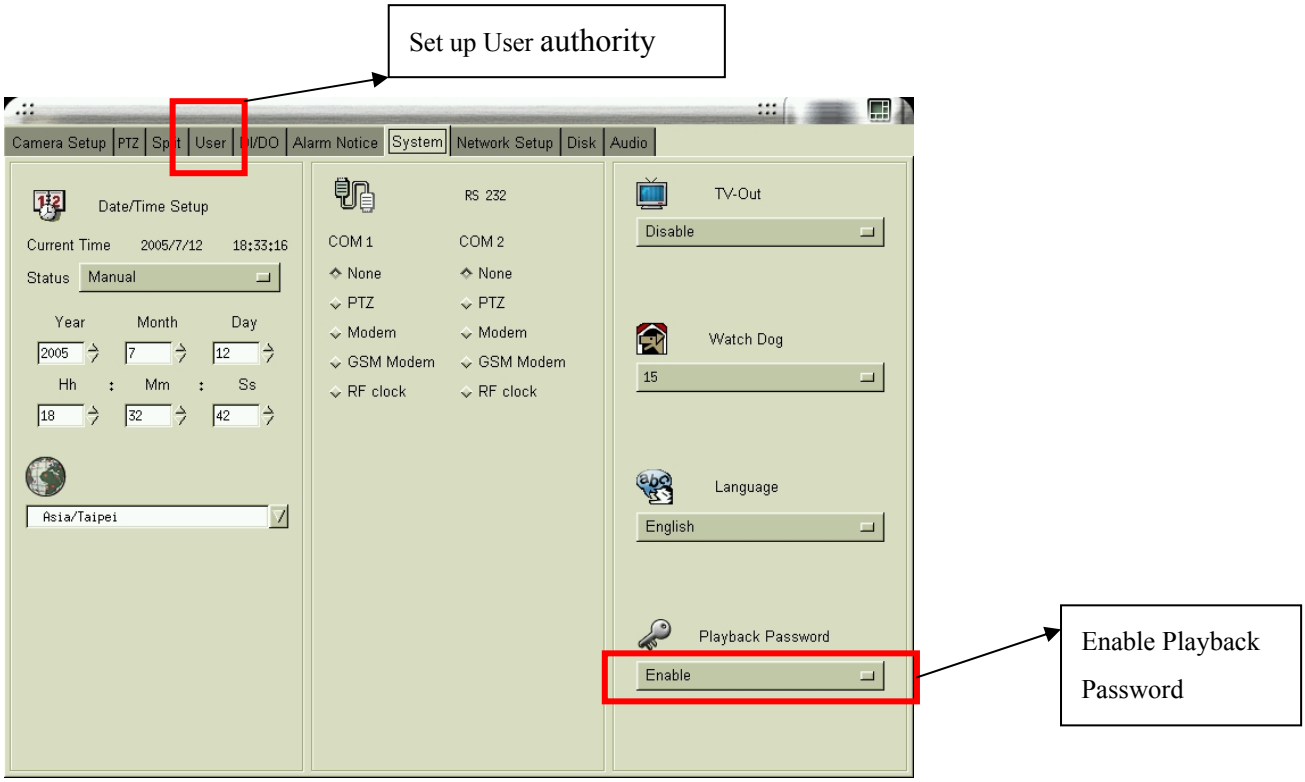
3. Playback

Click the playback icon on the main screen to enter playback mode. If “Playback Password Protection” function is enabled (See 3-1 Playback Password Setting), the system will prompt you to enter User name and Password to enter playback mode as following,

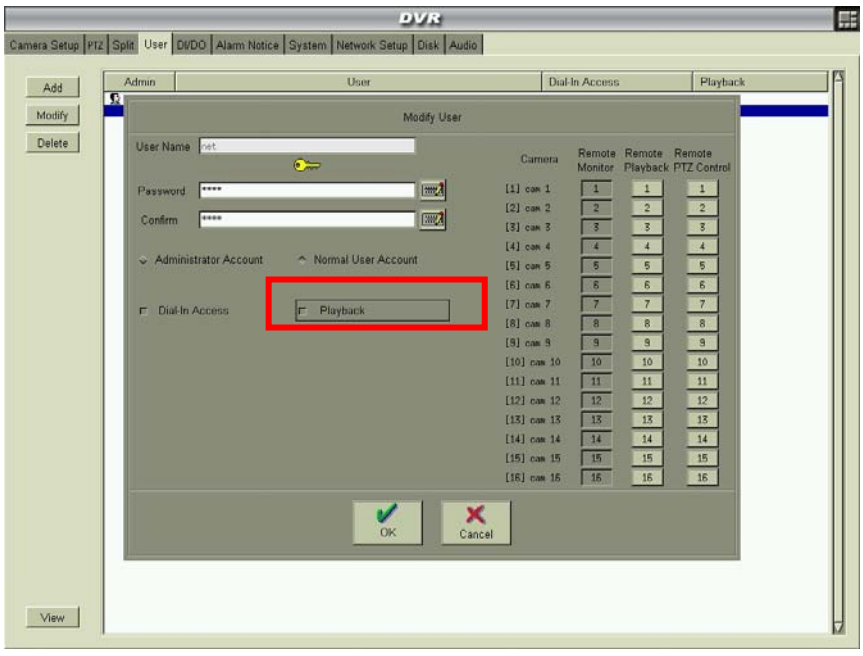

[1] cam 1
[2] cam 2
[3] cam 3
[4] cam 4
2004-11-10 15:08:33 CST +0800
2004 November
15:08:33
Play
Calendar
Browse
Status
Search by hour
Search by minute
Play
Full Screen
Camera Selection
Save to Floppy
Save to CD-R/RW
Main screen

3-1 Playback Password Setting

If you want to activate “Playback Password Protection” function, click in the main menu to go the “System Setting” as following. Change the “Playback Password” from “ **Disable**” to “**Enable**” mode.



Then, set up the “**User**” authority of playback as following,



3-2 Search for Recorded Data

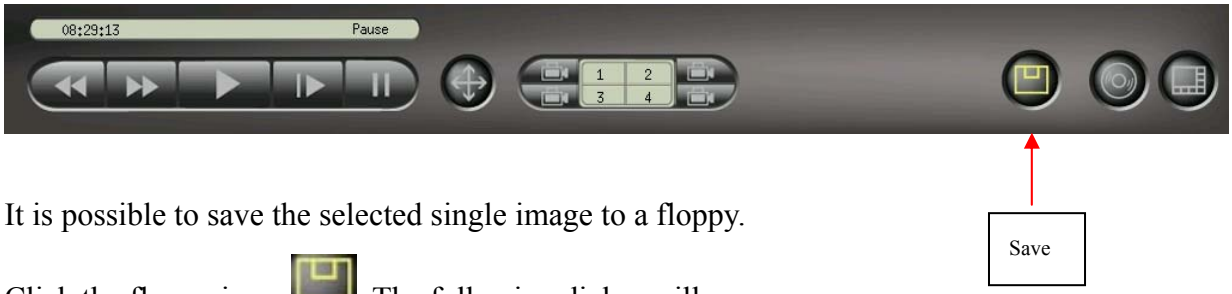
Click on the date of the calendar in the upper right corner of the screen and then select the “hour” and “minute” using the two bars on the lower right corner.

Next select the cameras for playback using the buttons at the bottom of the screen. You can playback up to 4 cameras at the same time. When you click the camera button, camera numbers 1 to 16 will appear. Select the desired camera to playback. Choose “ - ” if no camera is to be played back on this screen. The color of the selected cameras on the right side of the screen will be in “light blue” background.

Click the Play button to start playback.

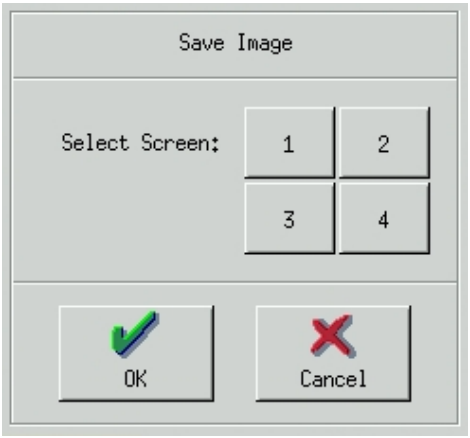
- You can 2×, 4×, 6× forward by clicking Forward button one more time.
- You can 2×, 6× rewind by clicking Rewind button one more time.
- Next Frame allows you to play picture by picture.

3-3 Save to Floppy

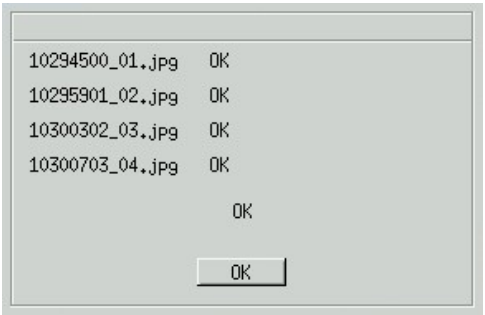


It is possible to save the selected single image to a floppy.

Click the floppy icon . The following dialog will appear:

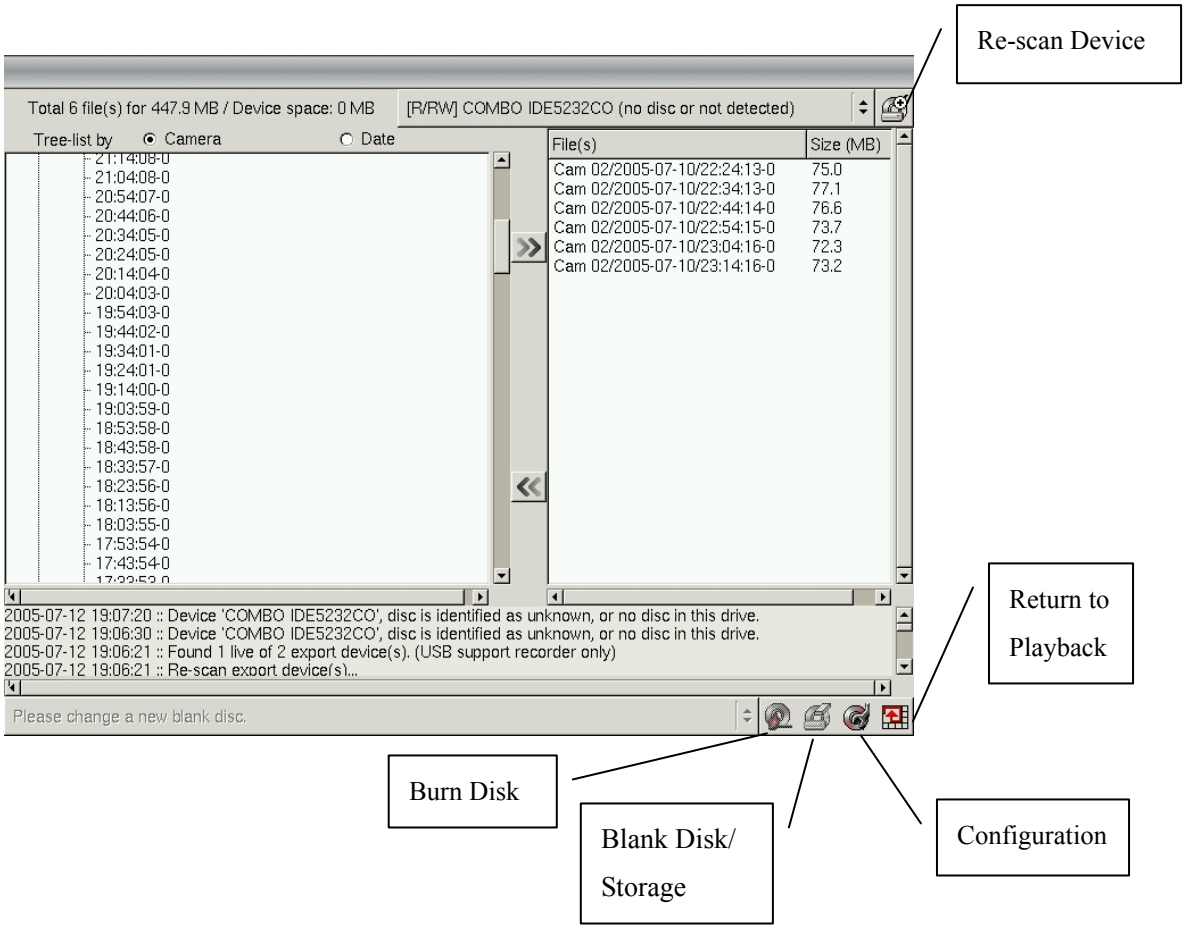


Choose the screens you would like to save to the floppy. If you would like to save single images of all the 4 screens as JPEGs, select all numbers and click “OK”.



3-4 Backing up Video Files

You can copy the video files from hard disk to external storage media, such as CD-R/RW DVD-R/RW or DVD+R/RW. Click the CD icon to see the following screen:


Re-scan Device
Total 6 file(s) for 447.9 MB / Device space: 0 MB
[R/RW] COMBO IDE5232CO (no disc or not detected)
Tree-list by
Camera
Date
File(s)
Size (MB)
Cam 02/2005-07-10/22:24:13-0 75.0
Cam 02/2005-07-10/22:34:13-0 77.1
Cam 02/2005-07-10/22:44:14-0 76.6
Cam 02/2005-07-10/22:54:15-0 73.7
Cam 02/2005-07-10/23:04:16-0 72.3
Cam 02/2005-07-10/23:14:16-0 73.2
2005-07-12 19:07:20 :: Device 'COMBO IDE5232CO', disc is identified as unknown, or no disc in this drive.
2005-07-12 19:06:30 :: Device 'COMBO IDE5232CO', disc is identified as unknown, or no disc in this drive.
2005-07-12 19:06:21 :: Found 1 live of 2 export device(s). (USB support recorder only)
2005-07-12 19:06:21 :: Re-scan export device(s)...
Please change a new blank disc.
Return to Playback
Burn Disk
Blank Disk/ Storage
Configuration

3-4-1 The Backing Up Procedures

1. Before you start to back up the video files, make sure that the back up program has detected the IDE/SCSI burning devices. If not, please check if the device is installed properly and click to rescan the device. After that, the device still can not be detected, please verify if the device is ok.

2. **Erase (Blank) the Disk**:

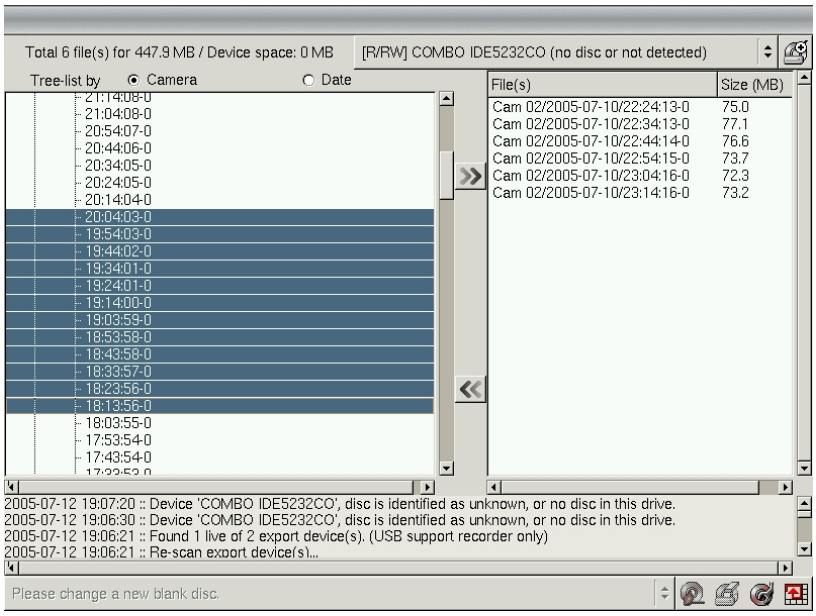
   If CD-R/RW or DVD+R/RW or DVD-R/RW is used, the icon will lighten after you insert the disk to the recorder.

   a. Click on to start the erasing process.

   b. After it is done, the Message area will display “Done”.

   ✍ If CD-R is used, you do not need to execute this process.

3. **Select the files to back up**:
   Expand the hard drive directories in the left of the screen. Drag the mouse to select the recording files for backup (by Year, Month, Date) as shown in the following figure.



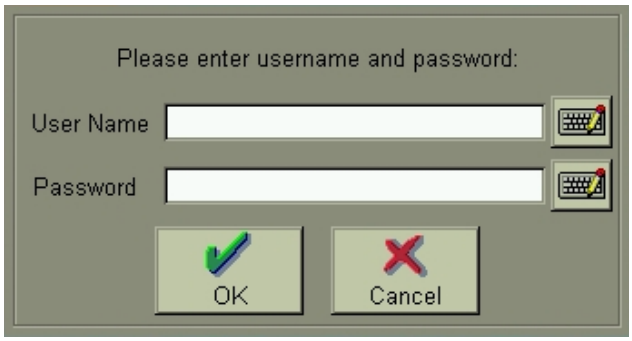
4. Click to move these files to the right side of the screen for burning to the burning

device. The total size of the selected files should not exceed 600MB.

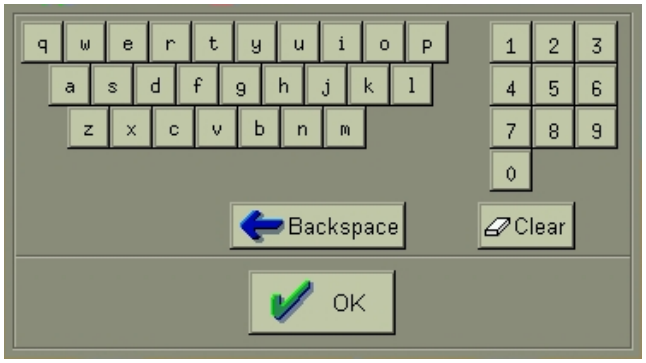
5. You can browse the other directories (dates) to continue the file selection.
6. Click on button, the system will first check if there is a blank disk inside the recorder. If not, the system will request for a replacement to insert a blank disk. When there is a blank disk inside, the system will convert the selected files into standard ISO 9660 format files (Make ISO), and burn the files to the disk.
7. If problems arise while recording to the disk, it might be due to the reasons indicated below:
   - ♦ The blank CD or DVD disk is in bad quality: Replace with a better quality disk.
   - ♦ The CD-RW or DVD+R/RW or DVD-R/RW has been used too many times: Replace with a new disk.
   - ♦ The recorder cannot process high-speed burning: Reduce the burning speed.
   - ♦ The blank disk does not support high-speed burning: Reduce the speed, or replace with high-speed compatible disk.

4. System Settings

Click the icon on the main screen to go to the system settings page.



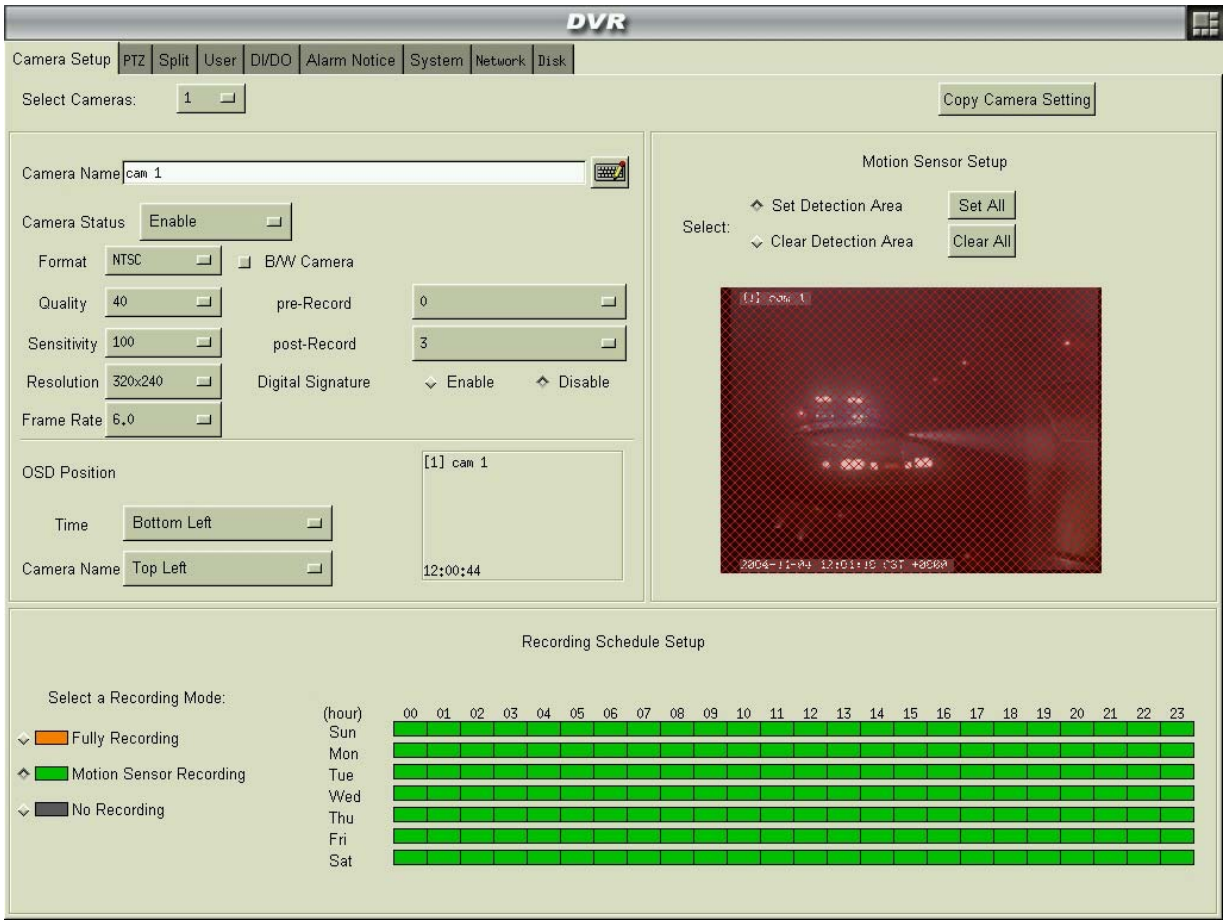
Click on the keyboard icon to enter the user name and password.



To exit the System Settings, click on the upper right corner in the "System Settings" screen.

✍ Preset user name: **admin**
Preset password: **1111**

4-1 Camera Setup



1. Select the desired camera for setup.
2. **Camera Name**: Use the "keyboard figure" on the right of "Camera Name" field to enter the description for the camera.
3. **Camera Status** (Disable/Enable/Hide): If the channel is not connected to a camera, set "Disable". If it is connected, set "Enable". If you do not want the camera image to be showed on the main screen, set "Hide".

✍ If a camera is "hidden", the video is still recorded in the hard disk.

---

4. **B/W Camera**: If "black&white" camera is used, please click the "B/W Camera" icon.
5. **Video Format** (NTSC/PAL/SECAM): The video format of 16 cameras must be the same. Therefore, if you change the video format of any camera, all the rest cameras will be changed to the same format automatically.

6. **Quality** (10/20/30/40/50/60/70/80/90/100): You can adjust the recording quality. The higher the number, the better the quality. However, the higher quality setting will consume more hard disk space.
7. **Sensitivity** (10/20/30/40/50/60/70/80/90/100): You can set the sensitivity of motion detection during recording. It is recommended to adjust the setting to 100 in order to prevent any data loss. However, in some special conditions, the system continues to record even when no motion has occurred. This will result in a considerable amount of useless data being recorded. In such a case, it is recommended to lower the sensitivity setting to avoid wasting hard disk
8. **Resolution** (320×240/640×480): You can adjust the recording resolution. The higher the number, the better the quality. However, the higher quality setting will consume more hard disk space.
9. **Frame Rate** (0.2/0.5/1/2/3/4/5/6/7/8/10/12/15/max): You can adjust the recording frame rate. The higher the number, the higher frame rate will be recorded. However, with higher frame rate, the hard disk space will be consumed faster.
10. **pre-Record** (0/1/2/3/4/5/6/7/8/9/10): The setting allows you to record a certain seconds before an alarm happens.
11. **post-Record** (0/1/2/3/4/5/8/10/15/20): The setting allows you to record a certain seconds after an alarm happens.
12. **Digital Signature** (Enable/Disable): The setting allows you to encrypt digital signature (watermark) to the video content.
13. **OSD** (On Screen Display) **Position**: you can select where the "time" and "camera name" will be displayed in the image in live view. There are four positions to choose from: Top Left, Top Right, Bottom Left and Bottom Right.
14. **Motion Sensor Setup**: This is used to set the motion sensor area.

    14-1 Method One

    (1) Click

    (2) Select "Set Detection Area" and use the mouse to drag an area to be detected.

    (3) You can set many detection areas by dragging mouse again.

    14-2 Method Two

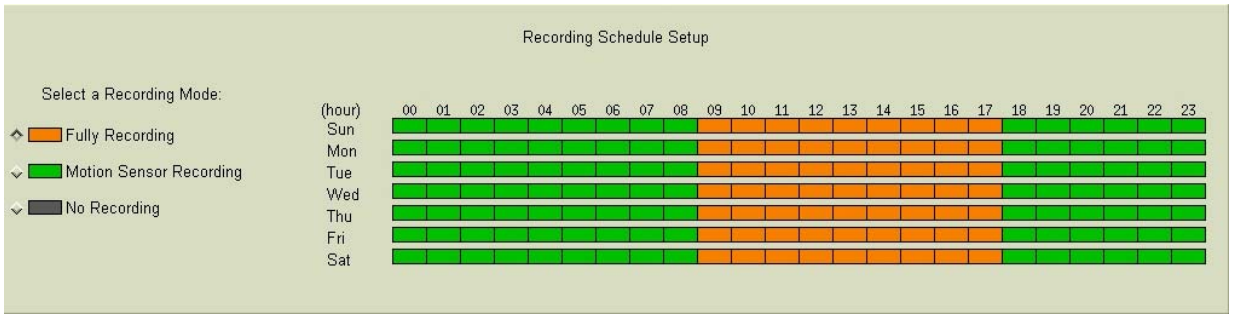
    (1) Click

    (2) Select "Clear Detection Area" and use the mouse to drag a non-detection area.

    (3) Drag the mouse again to set more non-detection areas.
15. **Recording Schedule Setup**: Refer to the Recording Schedule Table below. There are 7 rows and 24 columns in the schedule table, which represents 7 days and 24 hours.

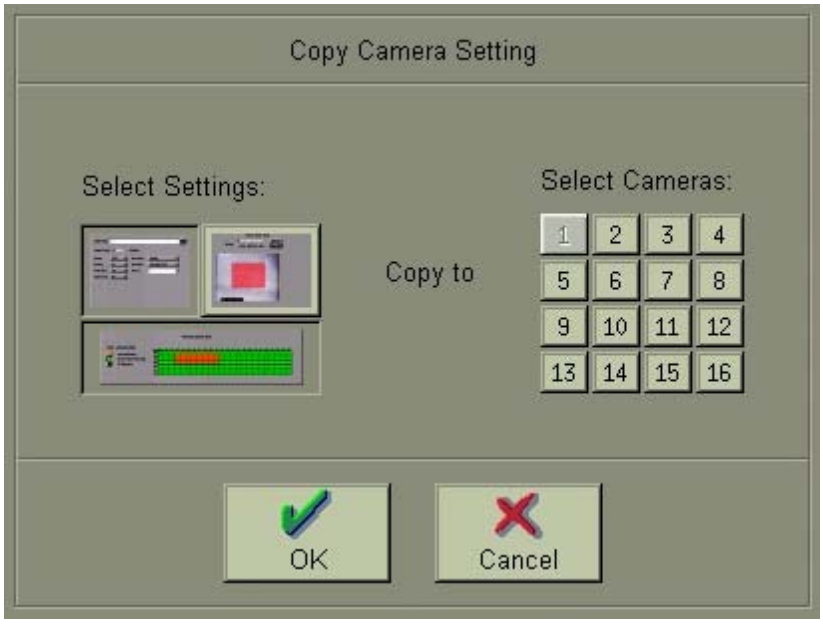
    There are three recording modes:

- Full recording.
- Motion sensor recording
- No recording

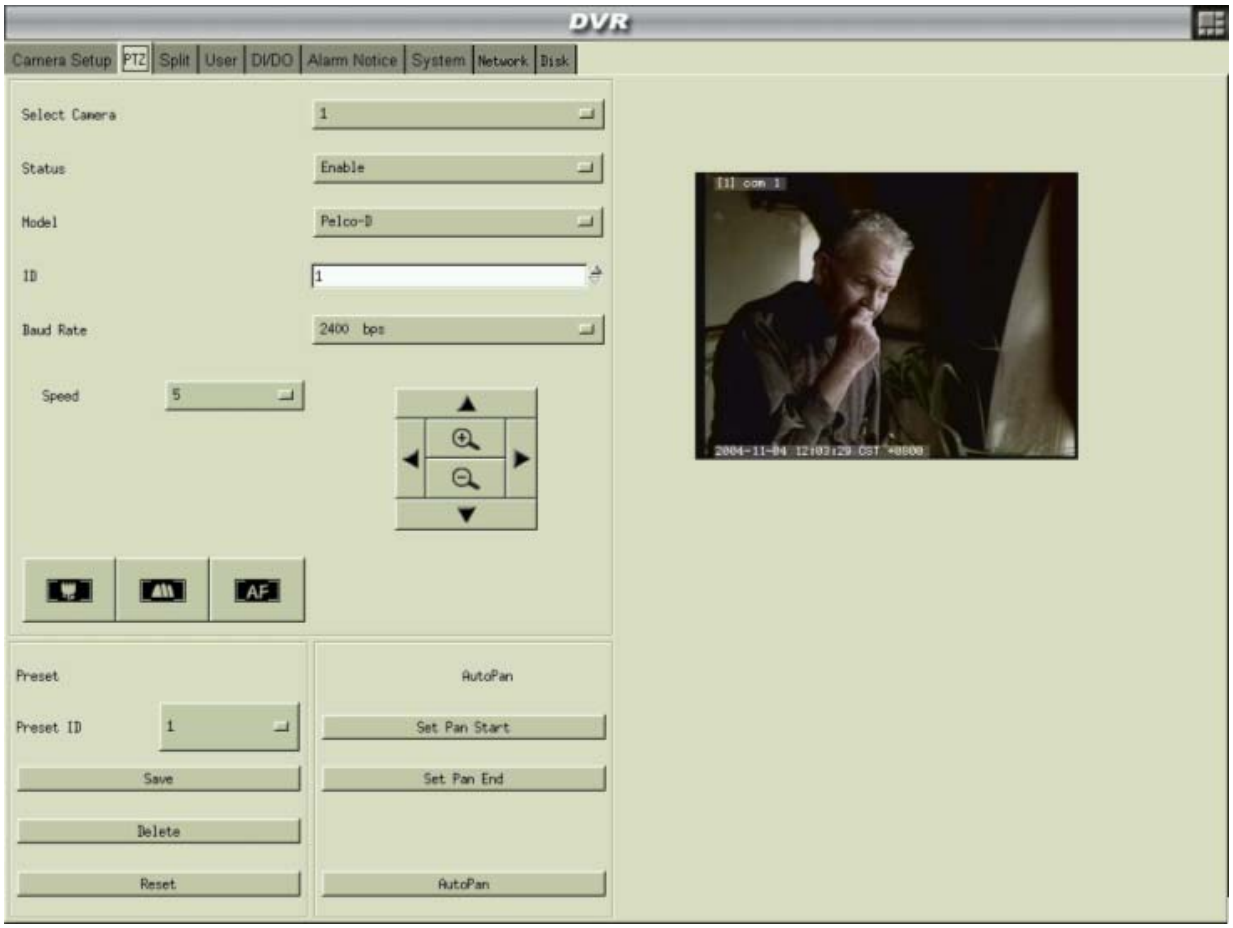


First choose the Recording Mode button located on the left of the schedule table, and then drag with the mouse an area for each recording mode on the table.

16. **Copy Camera Setting**: After finishing the camera setup for one camera, you can click the "Copy Camera Setting" button, located on the upper right of the "Camera Setup" screen, to copy the setting of this camera to other cameras. This saves time and effort. The following dialog will appear. Click the setting area you would like to copy (Refer to the three "areas" below), then click the cameras located on the right of the screen and click "OK".



4-2 PTZ



To make the PTZ camera function correctly, please follow the instructions below:

1. Connect the PTZ to RS232 port (via RS485-RS232 converter).
2. Refer to Chapter 4-7-2 to assign “PTZ” to the RS232 port you connected.
3. Refer to the user manual of PTZ to setup the protocol, baud rate and ID.
4. Select Camera: please select the correct camera number which has PTZ function.
5. Status: set to ”Enable”
6. Model, ID, and Baud Rate: set the ID the same as the PTZ camera.

You can control the PTZ camera using the control panel in this page.

: Focus near

: Focus far

: auto focus

Preset function:

1. Select preset point 1.
2. Move the PTZ camera to the position 1 using the panel.
3. Click “save”.
4. Select other preset points and follow the same procedure to set up.

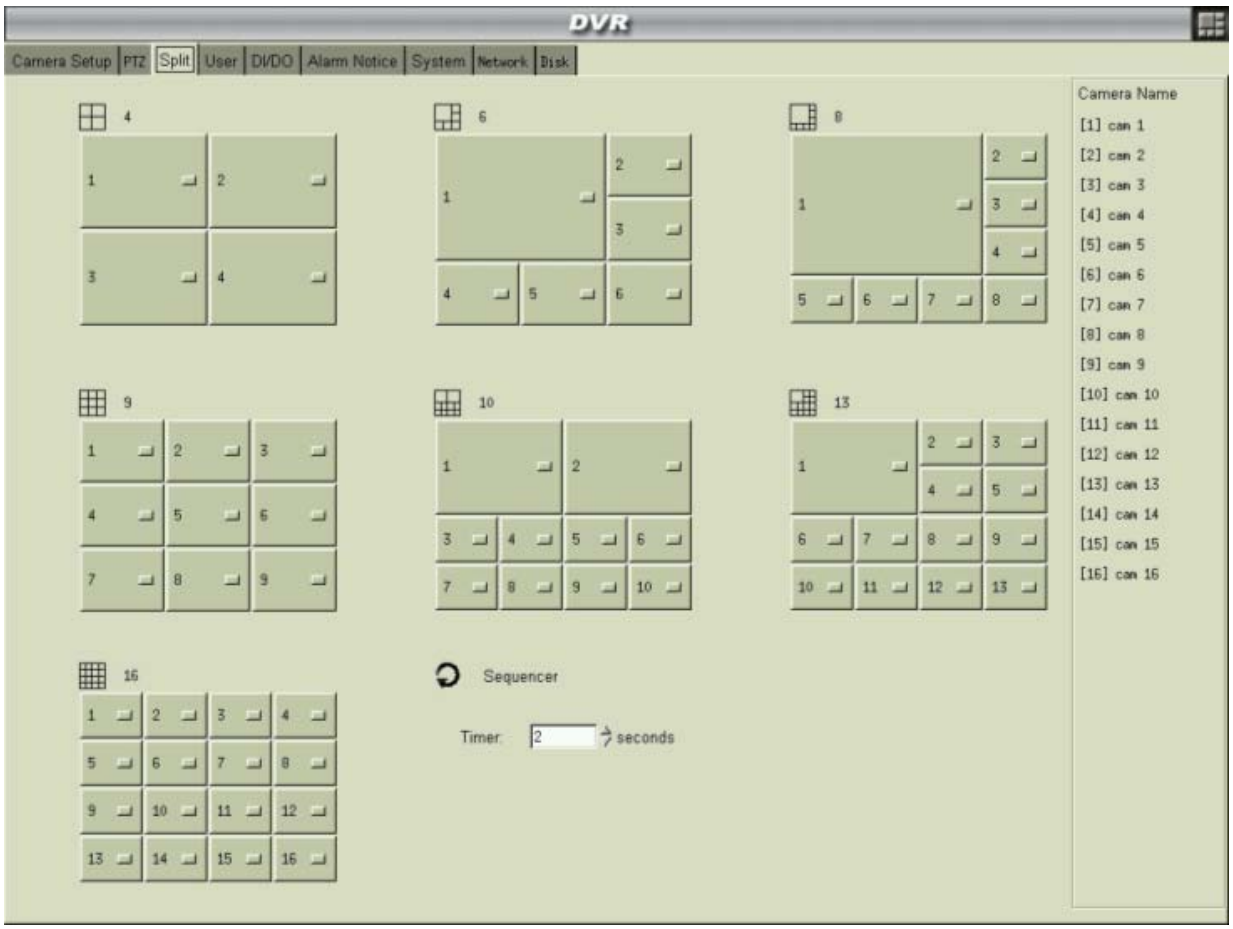
Auto-Pan function:

1. Click “Set Pan Start”
2. Move the PTZ camera, the PTZ will remember the path.
3. Click “Set Pan End”

✍ Preset and Auto-pan function is different from protocol to protocol. The above example is given using Sensormatic protocol for example.

4-3 View Setup

Clicking the “Split” tab will display the view setup screen as follows.



1. The display content for the 7 display modes mentioned in chapter 2-1 is setup through the “Split” tab on the screen above.

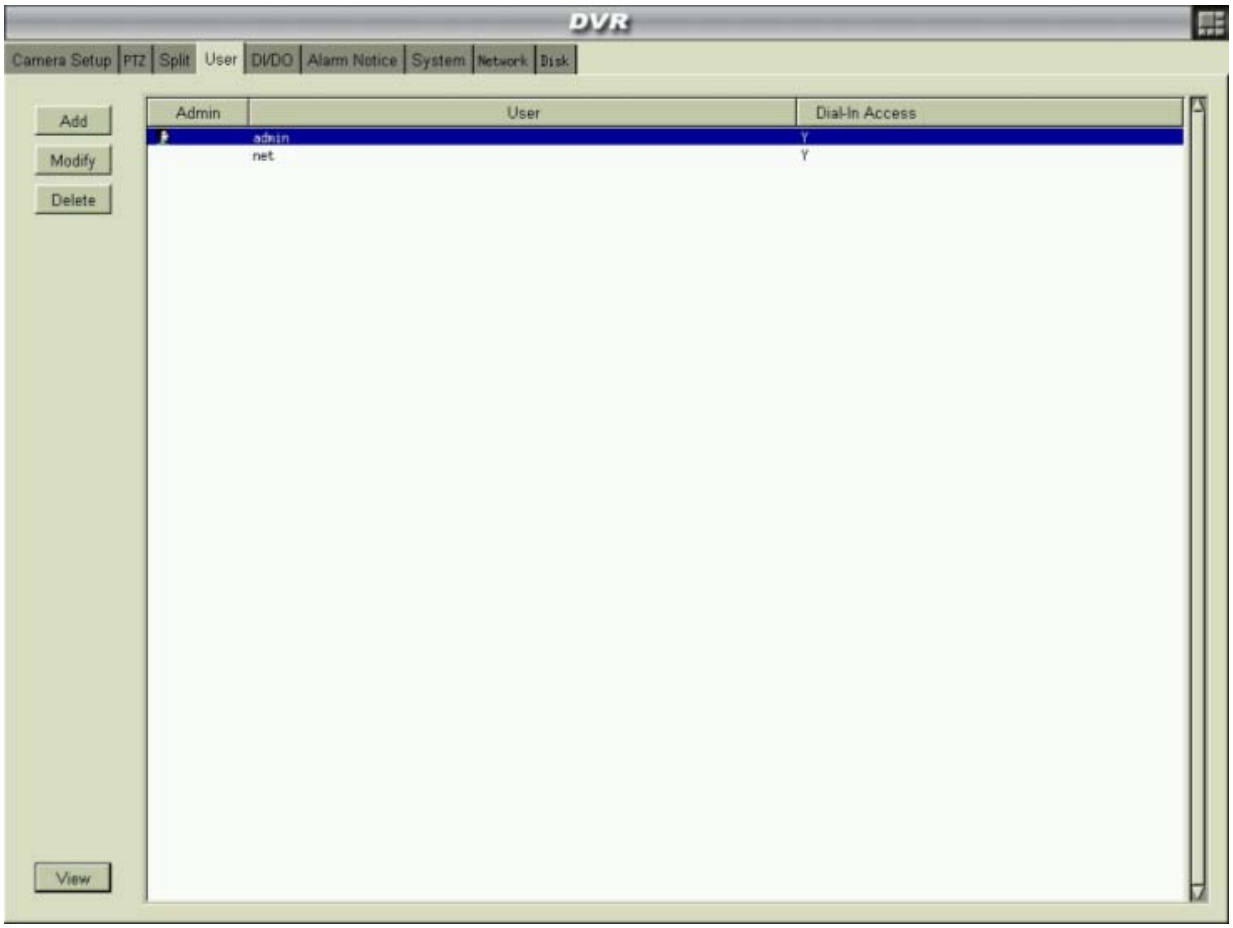
There are 4 splits, 6 splits, 8 splits, 9 splits, 10 splits, 13 splits, 16 splits setting screen. Click the “small block” on the split screen, then you can modify the camera shown on each split screen. An example for the description of the all cameras when doing the view setup is located on the right side of the table.

2. Sequencer Setting

On the bottom of the “Split” screen, there is a “Sequencer” button. Click this button and enter the desired sequencer time (up to 300 seconds). The sequencer format of CyberVision SuperVision series is 4 splits.

4-4 User Account Management

The **User Account Management** function allows different user to login the system using different user name. To start using this function, click on the **User** icon.



There are 2 system preset accounts. The user names and passwords for these two accounts are as follows.

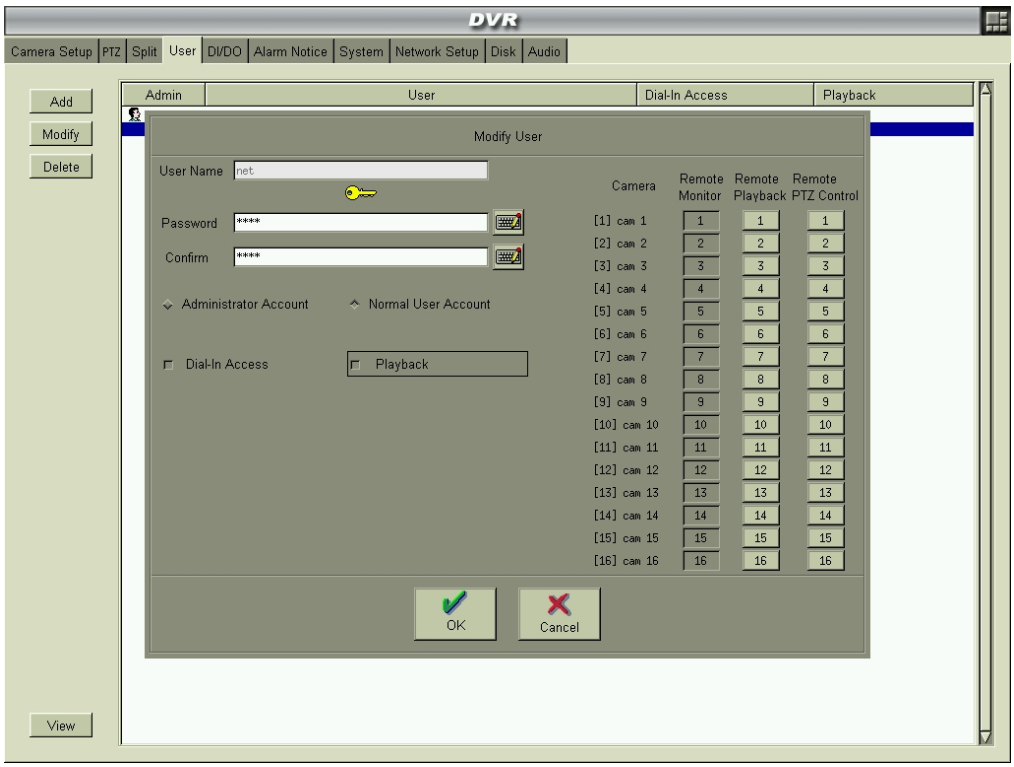
♦ Username: "**admin**"; Password: "**1111**" is for the system management account. This account cannot be deleted.

♦ Username: "**net**"; Password: "**1111**" is for the normal user account. This account can be deleted.

To see more details of the account information, click **View** on the bottom left of this screen.

[Add User Account]:

Click “Add” icon to add new user accounts as screen below.



- Enter the name and password for the new user.
- Administrator Account/Normal User Account: Only administrator account can enter the system setup menu to change the settings. Normal User accounts are used for remote login only.
- Dial-In Access: This option is to enable/disable the user to dial into the DVR, i.e., to access the system through modem.
- Playback: Authorize user the function of playback.
- Remote Monitor/Playback/PTZ Control: You can define the authorization of each user to use remote functions.

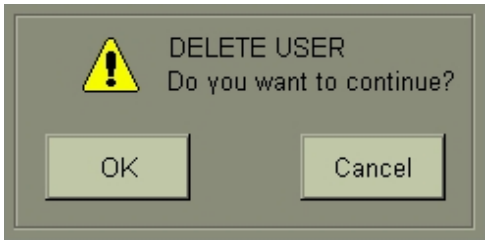
[Modify User Account]

Click “Modify” icon to modify the existing user account.

The operation is similar to that of the “Add User Account” above.

[Delete User Account]

Click “Delete” icon to delete the user account. A screen will display as follows.

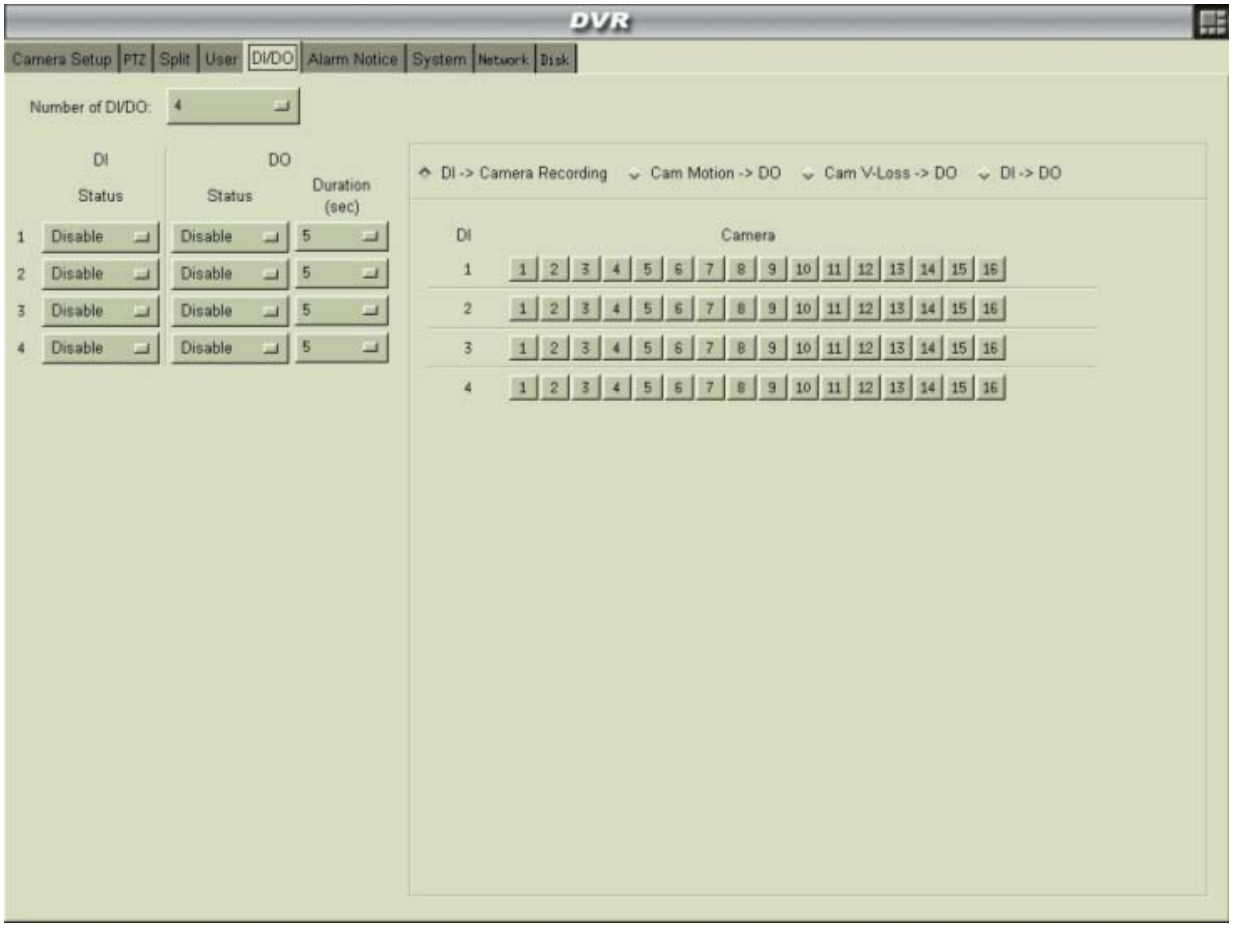


Click “OK” if you would like to delete this user account.

✍ The preset user “admin” cannot be deleted.

4-5 DI/DO

Click on the **DI/DO** icon and select the total number of DI/DO installed on your system to see the following figure:



[DI Status]

Choose Disable, NC, or NO according to your DI device (e.g., photo sensor).

- Disable: Disable the DI function.
- NC (normal closed): The signal loop is closed under normal conditions. When the loop becomes open, DI will be triggered until the loop becomes closed again. In other words, if the loop keeps on open for a period of time, DI will keep on triggering in that time interval.
- NO (normal open): The signal loop is open under normal conditions. When the loop becomes closed, DI will be triggered until the loop becomes open again. In other words, if the loop keeps on closed for a period of time, DI will keep on triggering in that time interval.

[DO Status]

- Disable: Disable the DO function.
- Enable: Enable the output signal when DO is triggered.
- Set the duration of DO signal. The available durations are 5, 10, 30, 60, 120, 300, 600, 1800 and 3600 seconds. If DO is triggered, in this time interval, DO will keep on triggering.

[Action]

There are 4 actions that are related to the DI/DO functions.

- **DI →Camera Recording**

  When DI is triggered, DVR can start to record the video of selected cameras. You can select the cameras to be recorded when DI is triggered by using the "DI/Camera array" shown below the setting. Each DI signal can trigger more than one camera recording.

- **Cam Motion →DO**

  When selected camera detects motion, selected DO can be triggered and start to send control signal to the external device (e.g., alarm) within the DO duration. The "Camera/DO array" below the setting allows you to relate the DO devices corresponding to each camera.

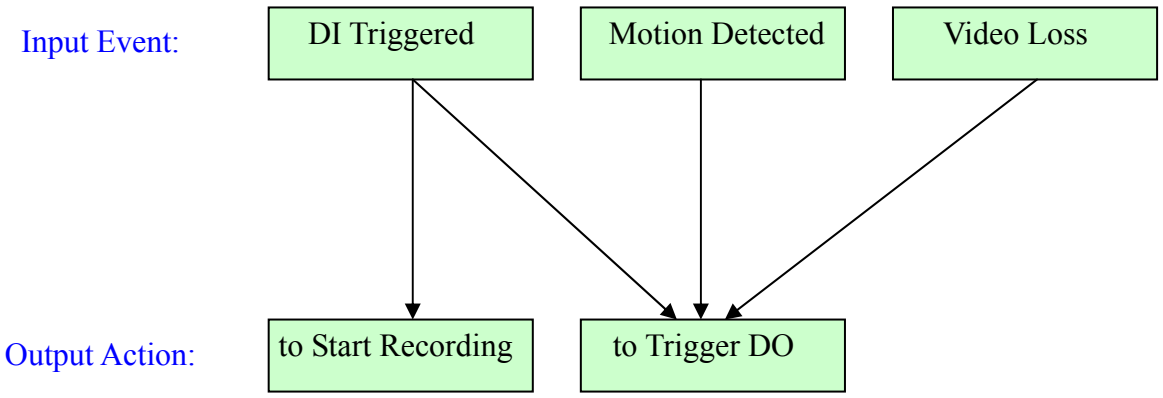
- **Cam V-Loss →DO**

  When selected camera video is lost, selected DO can be triggered and start to send control signal to the external device (e.g., alarm) within the DO duration. The "Camera/DO array" below the setting allows you to relate the DO devices corresponding to each camera.

- **DI →DO**

  When selected DI is triggered, selected DO can be triggered and start to send control signal to the external device (e.g., alarm) within the DO duration. The "DI/DO array" below the setting allows you to relate the DO devices corresponding to each DI.

- The following figure may help to understand the concept described above.

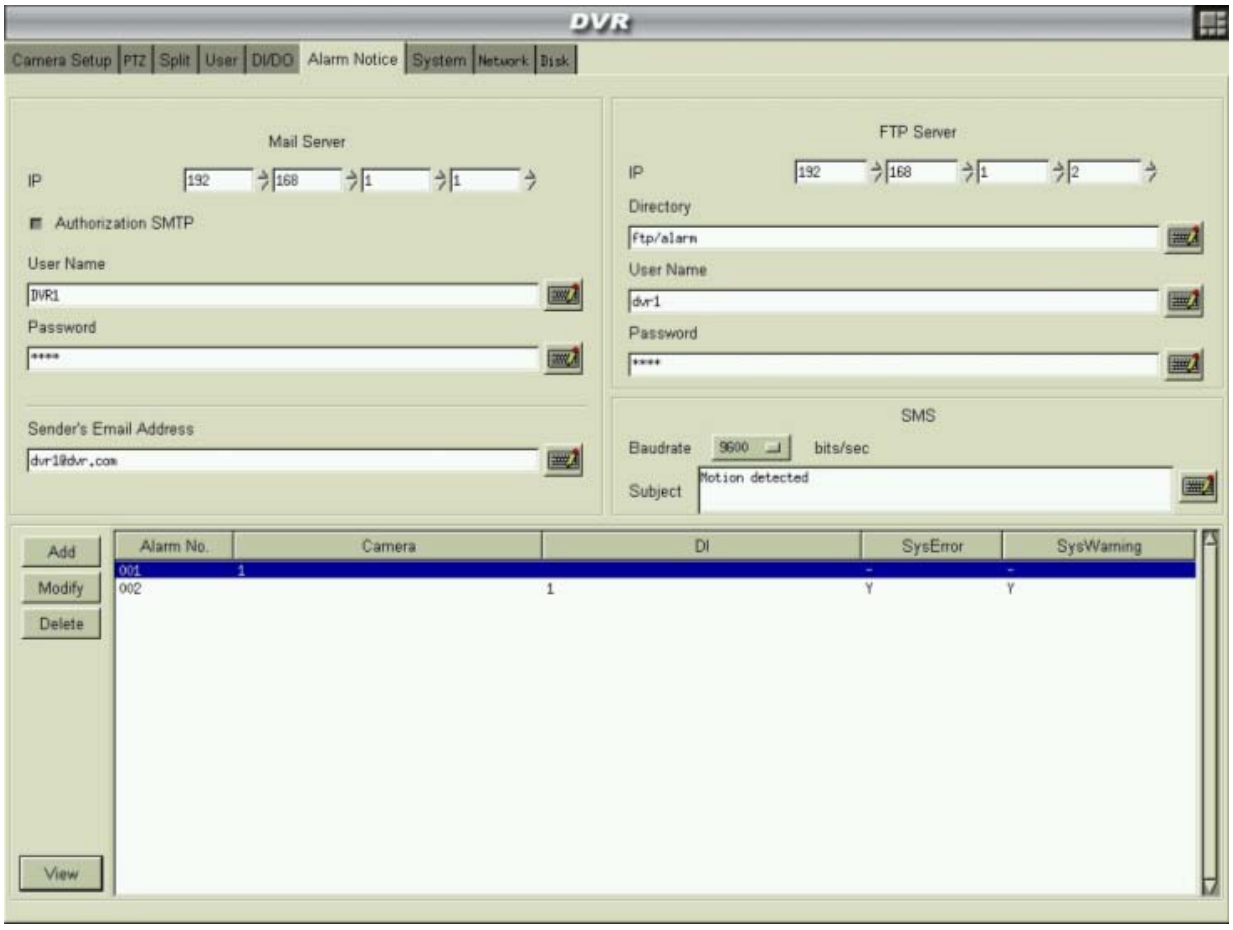


4-6 Alarm Notice

HyperVision DVR can send four types of alarm to your pre-defined **email addresses**, **FTP site**, or **mobile phone number (**via **SMS)**. This section gives step-by-step instructions to send different alarms to each destination. We define four types of alarm sources as below.

Alarm Source	Definition
Motion Alarm	Motion is detected in selected cameras (despite the recording mode is full recording, motion sensor recording or no recording).
DI Alarm	Selected DI is triggered.
System Error Alarm	(1) Hard disk error, or (2) Camera lost signal.
System Warning Alarm	1. Hard disk is going to enter recycle mode (free space less than 4GB), or 2. Hard disk has being in recycle mode.

First, please click on the icon "**Alarm Notice**" to see the following figure:

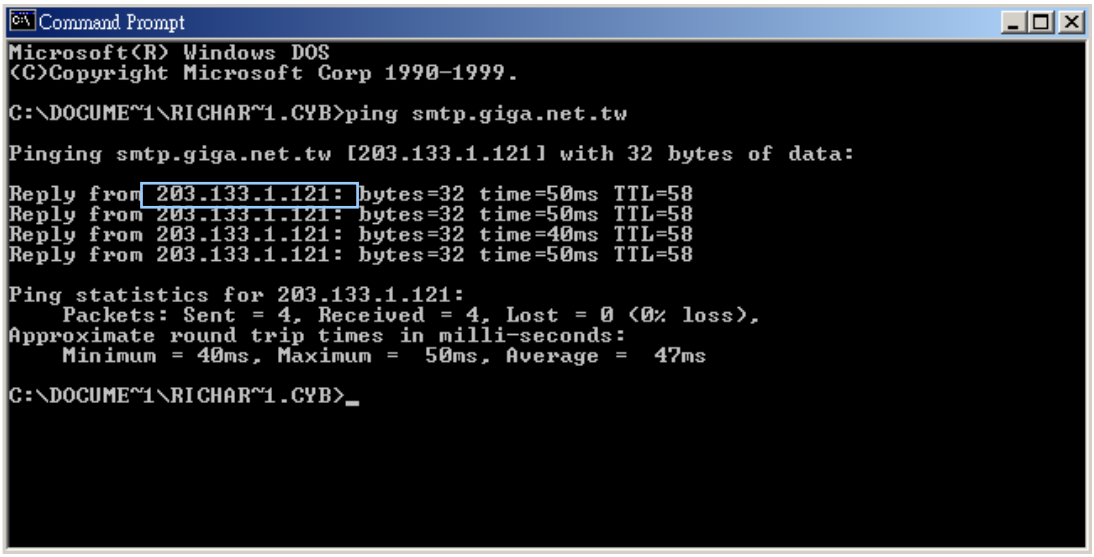


[**Alarm to Email]**

(1) Make sure the DVR system connects to Internet.

(2) Key in the IP address or the hostname of the mail server. If the mail server requires user name and password to send emails, please click the icon "Authorization SMTP" to enter the user name and password.

If you don't know the IP address of your mail server, you can ping the mail server to get the IP address as following figure.


Command Prompt
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-1999.
C:\DOCUME~1\RICHAR~1.CYB>ping smtp.giga.net.tw
Pinging smtp.giga.net.tw [203.133.1.121] with 32 bytes of data:
Reply from 203.133.1.121: bytes=32 time=50ms TTL=58
Reply from 203.133.1.121: bytes=32 time=50ms TTL=58
Reply from 203.133.1.121: bytes=32 time=40ms TTL=58
Reply from 203.133.1.121: bytes=32 time=50ms TTL=58
Ping statistics for 203.133.1.121:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 40ms, Maximum = 50ms, Average = 47ms
C:\DOCUME~1\RICHAR~1.CYB>

(3) Key in sender's full email address. It must be a valid email address.

(4) Add Alarm Notice: Click the icon **Add** to see the follow figure.

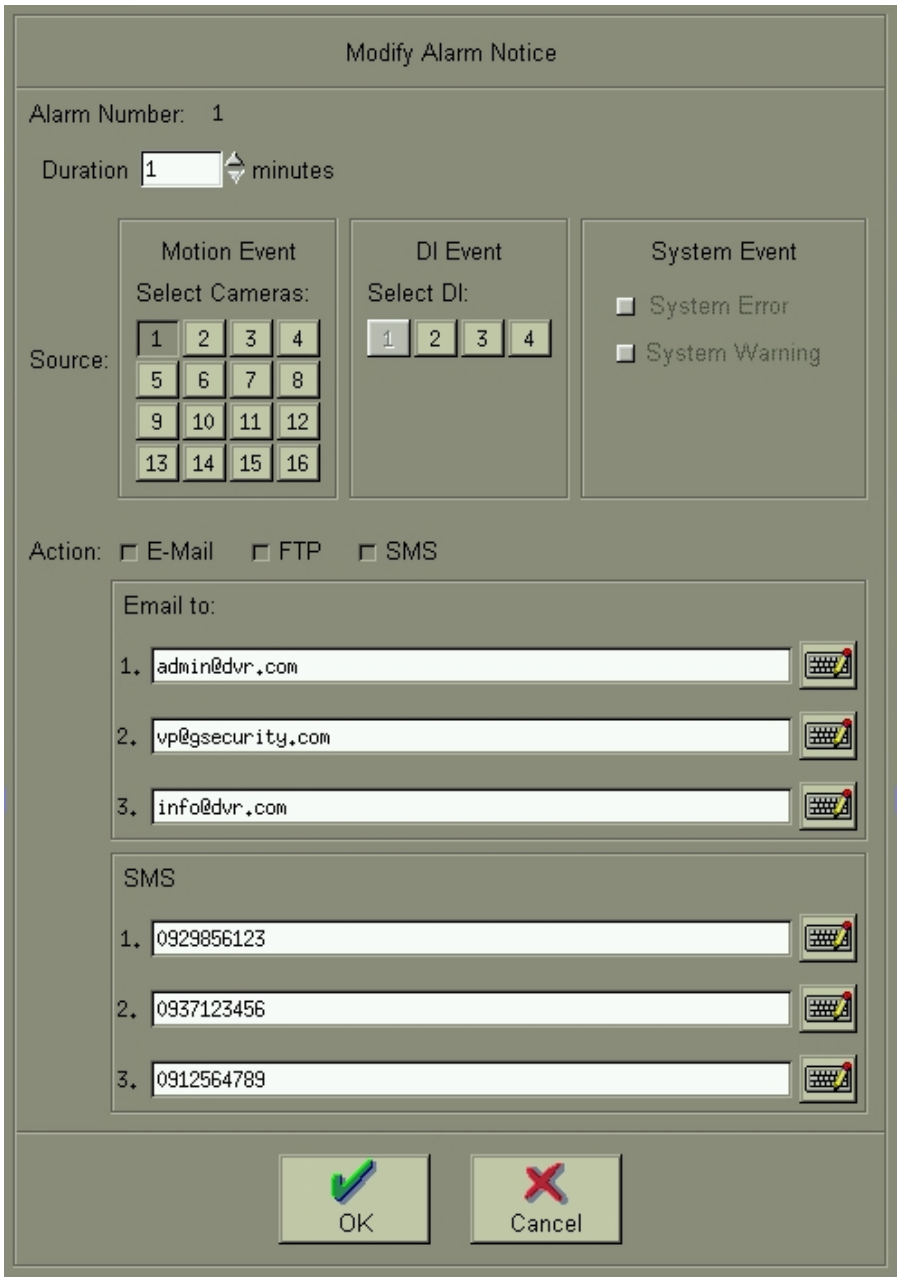
(5) Alarm Duration: The duration time can be from 1 minute to 1440 minutes (1 day). When the "Alarm" happens, the DVR system will send the alarm notice one time during the duration and do it again in next duration until the "Alarm Source" disappears.

(6) Select alarm **Source**. Please refer to the definition of each alarm source.

(7) Action: Click the icon "**E-Mail"** and key in the email addresses which will receive the alarm notice. You can enter three email addresses to be notified for a single alarm.

(8) Click "**OK**" when you have done the setting.

(9) You can add another alarm notice by repeating the step (4) to (8).



[**Alarm to FTP Site]**

(1) Make sure the DVR system connects to Internet.

(2) Key in the IP address of the FTP site.

(3) Enter the directory you would like to store the alarm notice (logs and pictures).

(4) Add Alarm Notice: Click the icon **Add** to see the above figure.

(5) Alarm Duration: The duration time can be from 1 minute to 1440 minutes (1 day). When the "Alarm" happens, the DVR system will send the alarm notice one time during the duration and do it again in next duration until the "Alarm Source" disappears.

(6) Select alarm **Source**. Please refer to the definition of each alarm source.

(7) Action: Click the icon "**FTP"**.

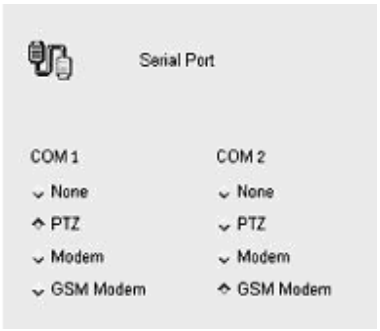
(8) You can add another alarm notice by repeating the step (4) to (7).

[**Alarm to SMS]**

This function requires an external GSM modem to send messages to mobile phones via SMS (Short Message Service).

(1) Please refer to your GSM modem user manual for the physical connections.

(2) Go to **Serial Port** setting in the **System** sub-menu. Choose **GSM Modem** on the COM port that connects to the GSM modem.



(3) Back to this **Alarm Notice** sub-menu, and set the **Baud Rate** to be 9600 baud per second. (Note: If you fail to send SMS successfully, you may reduce the baud rate to 4800 or 2400 bps and try again.)

(4) Key in the **Subject** of the alarm message (for example, DVR Alarm).

(5) Add Alarm Notice: Click the icon **Add**.

(6) Alarm Duration: The duration time can be from 1 minute to 1440 minutes (1 day). When the "Alarm" happens, the DVR system will send the alarm notice one time during the duration and do it again in next duration until the "Alarm Source" disappears.

(7) Select alarm **Source**. Please refer to the definition of each alarm source.

(8) **Action**: Click the icon "**SMS"** to enter the mobile phone number. You can enter three mobile phone numbers to be notified for a single alarm.

(9) Click "**OK**" when you have done the setting.

(10) You can add another alarm notice by repeating the step (5) to (9).

✍ You can send the same alarm notice via email, FTP, and SMS at the same time. You can also modify or delete your previous alarm notice setting. It is very similar to add a new alarm notice.

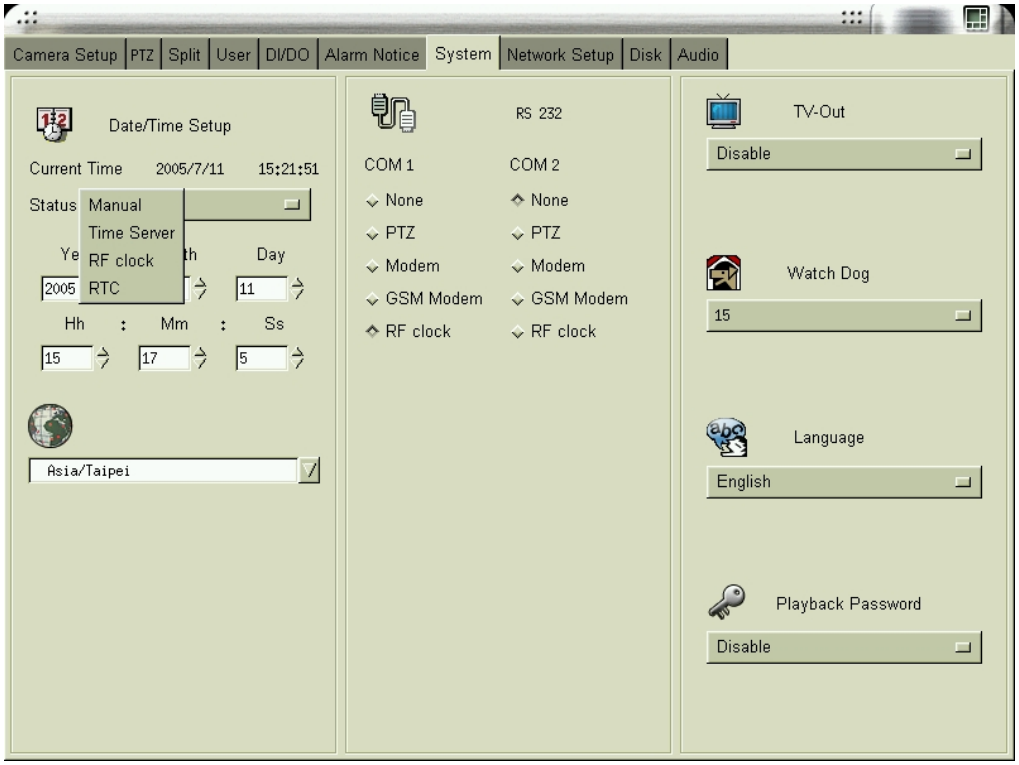
4-7 System

Click “System” tab for the settings: “Date/Time”, “RS-232”, “TV-Out”, “Watch Dog”, “Language”, and “Playback Password”.

4-7-1 Time Synchronization

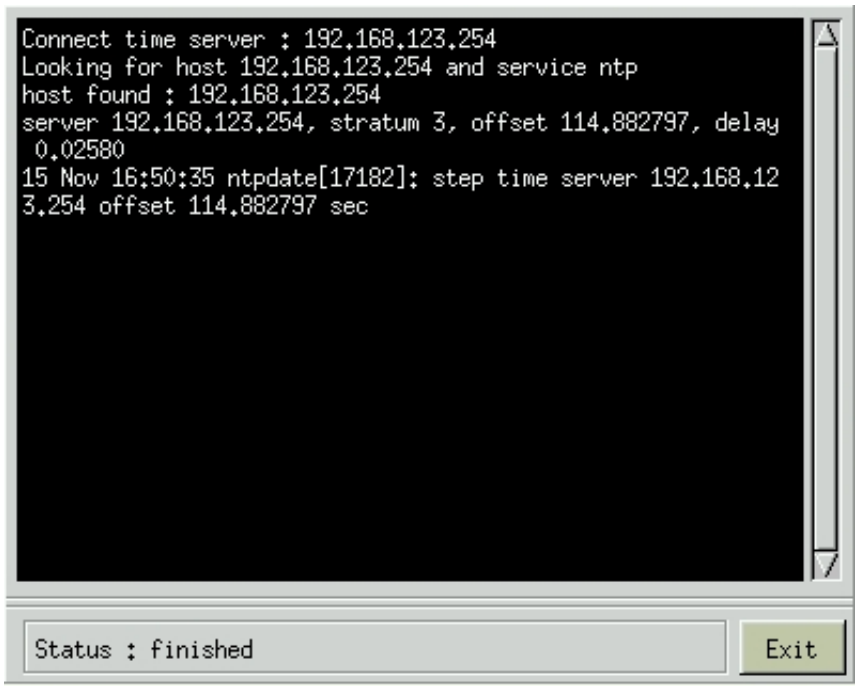
There are four kinds of methods to synchronize DVR's time.

Type	Description
1. Manual	Set up time manually
2. Time Server	Synchronize DVR time with Time Server
3. RF Clock	Synchronize DVR time with RF Clock
4. RTC	Synchronize DVR time with Real Time Clock(RTC)



When you select " Time Server" Synchronization, enter the IP address or hostname of the Time Server.

You can test the Time Server function by clicking “Time Server test”.


Connect time server : 192.168.123.254
Looking for host 192.168.123.254 and service ntp
host found : 192.168.123.254
server 192.168.123.254, stratum 3, offset 114.882797, delay
0.02580
15 Nov 16:50:35 ntpdate[17182]: step time server 192.168.12
3.254 offset 114.882797 sec
Status : finished
Exit

When you select “ RF Clock” Synchronization, you can click “ Test” button to do the “RF clock test”. Then, the DVR will issue a command to RF clock to get Time information and display it on the screen. RF Clock can be connected to the DVR through RS232 port.

Notes:

1. Configuring Time Synchronization will reboot DVR.
2. When you synchronize DVR time by RF Clock, the selection of RS232 COM port(COM 1 or COM 2) in System configuration must be the same as the physical connection.

4-7-2 Other Functions

[RS 232]

This setting is for you to configure the RS232 port. Select the correct device that connects to your system to make its function work.

[TV Out]

HyperVision DVR supports the VGA card with TV-out function. With this function, you can export DVR screen to TV Wall. You can click the icon and choose “Disable”, “NTSC-J”, “NTSC-M”, “PAL-B”, “PAL-D”, “PAL-G”, “PAL-H”, “PAL-I”, “PAL-M”, PAL-N” based on the TV-out function requirement.

[Watch Dog]

Watch Dog is a hardware device to monitor the system status. If the system fails to response, Watch Dog will send a reset signal to the motherboard to reboot the system. To enable Watch Dog function, please select available durations 15,20, 25… or 60 seconds. It requires **the first capture card** to have a physical connection to the reset pin of the motherboard.

[Language]

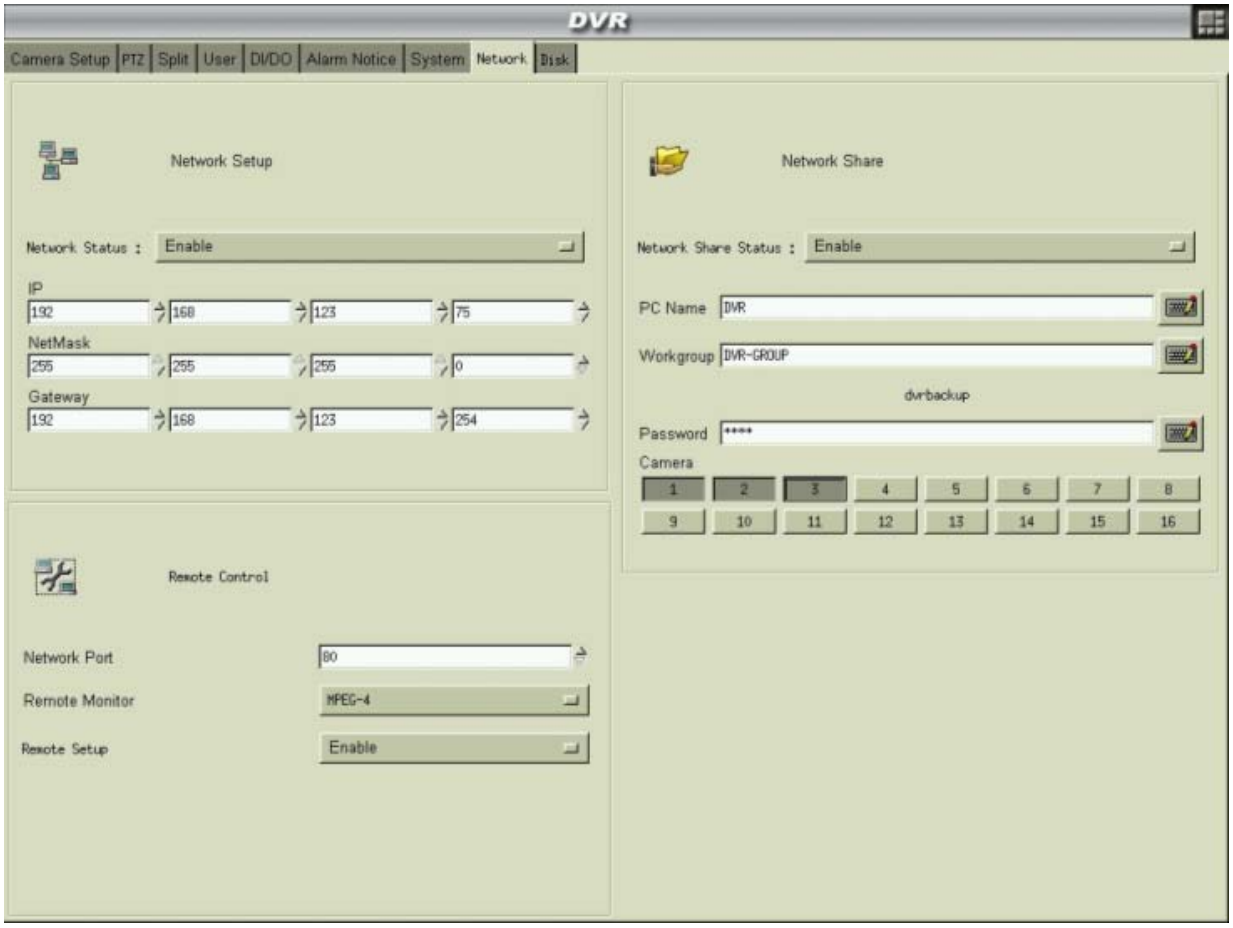
HyperVision DVR supports 8 display languages, i.e., English, French, Germany, Japanese, Polish, Portuguese, Spanish, and Traditional Chinese.

[Playback Password]

You can enable this function so that the system requires password in order to see playback.

4-8 Network Setup

Click “Network Setup” tab to set up the network configurations as follows. Enable the “Static IP ” and enter the IP address, NetMask, and Gateway in the fields.



[DNS]

An internet service that translates *domain name* into IP address . For example , the domain name *www.example.com* can translate into *198.105.232.4.*

[DDNS]

The Dynamic DNS service allows you to alias a dynamic IPaddress to a static hostname, allowing your computer to be more easily accessed from various location on the Internet.

To use the service , you must apply an account from several free Web servers such as *http://DynDNS.org*

[DHCP]

A protocol for assigning *dynamic IP address* to devices on a network. With dynamic addressing, a device can have a different IP address every time it connects to the network .

Note: If you use another network port (like port 81) instead of default port 80, when you start the remote viewing, please remember to add the port number followed by the IP address and

the "http://" in front of the IP address. For example: http://142.173.62.171:81. If you use port 80, you could just click the IP address directly.

4-8-1 Remote Monitor

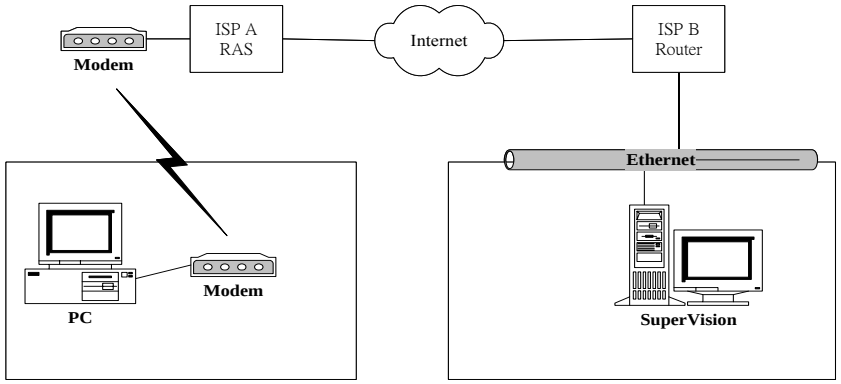
[**JPEG]**

If you set this function to be JPEG, DVR will encode one JPEG picture per channel per second for remote access. The remote PC needs to install Java Virtual Machine.

[**MPEG-4]**

If you set this function to be MPEG-4, DVR will encode about 30 pictures per system per second for remote access. The remote PC needs to install "MPEG4 player", which can be download from the DVR.

4-8-2 Remote Monitor via the Internet by a Modem



[DVR site]

Before starting the remote monitoring function, users need to apply for a fixed line (leased line or ADSL), and get the fixed IP address from the ISP (Internet Service Provider). The framework to perform this feature is depicted in the above figure. Moreover, please follow the procedure described in section 4-8 "Network Setup" to setup the network configuration. Remember to check that the fixed line(usually RJ45 cable) has connected to the DVR system correctly.

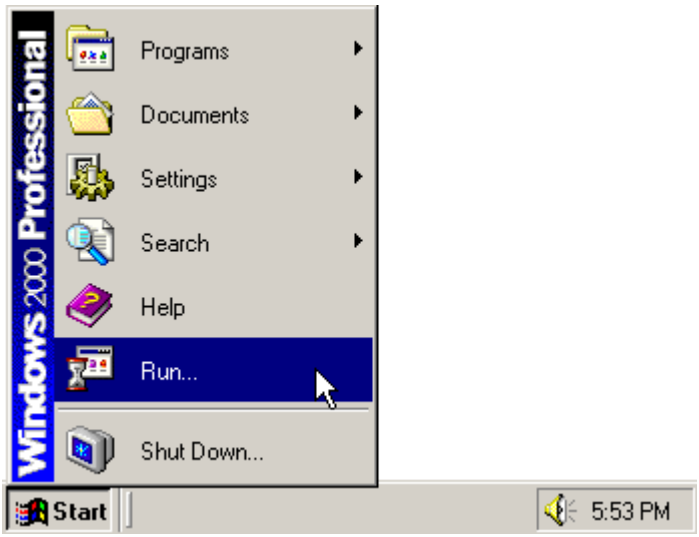
[Remote user site]

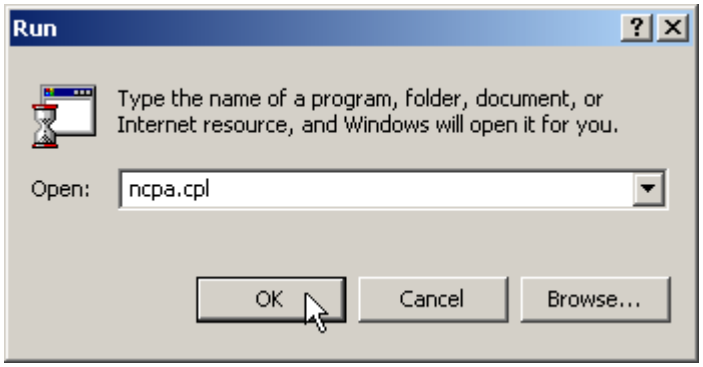
Please refer the following procedure (, which is extracted from documents provided by MicroSoft^{M} Inc. to finish the setting of user site where a window 2000 system is installed.

Windows 2000 Dial-Up Guide

Step 1

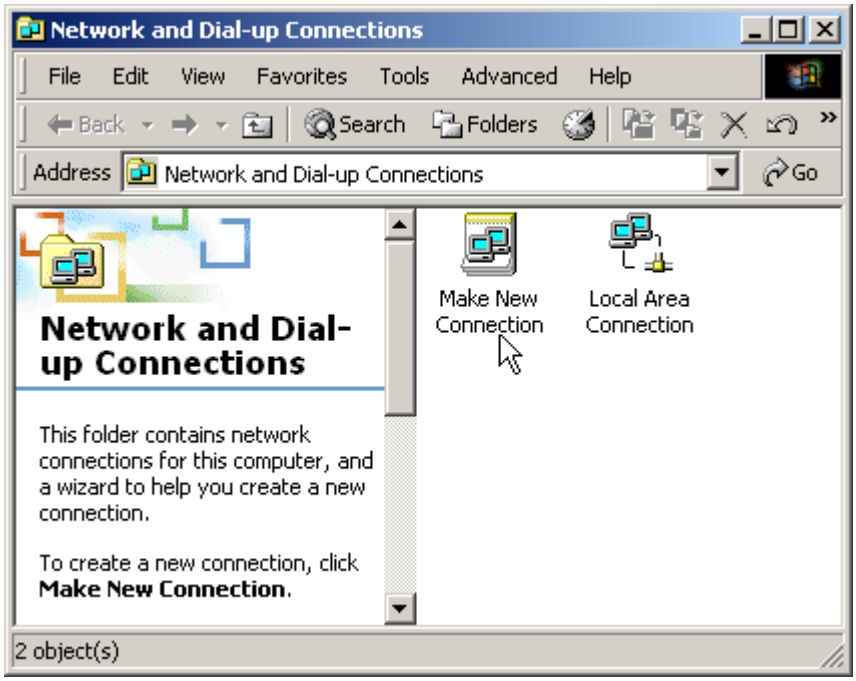
Click **Start** on your Windows taskbar, select **Run**. Type **ncpa.cpl** in the Open field then click **OK** to begin.





Step 2

In the Network and Dial-Up Connections window, open **Make New Connection** to start the Network Connection Wizard.


Network and Dial-up Connections
File Edit View Favorites Tools Advanced Help
Back Search Folders
Address Network and Dial-up Connections
Go
Network and Dial-up Connections
This folder contains network connections for this computer, and a wizard to help you create a new connection.
To create a new connection, click Make New Connection.
Make New Connection
Local Area Connection
2 object(s)

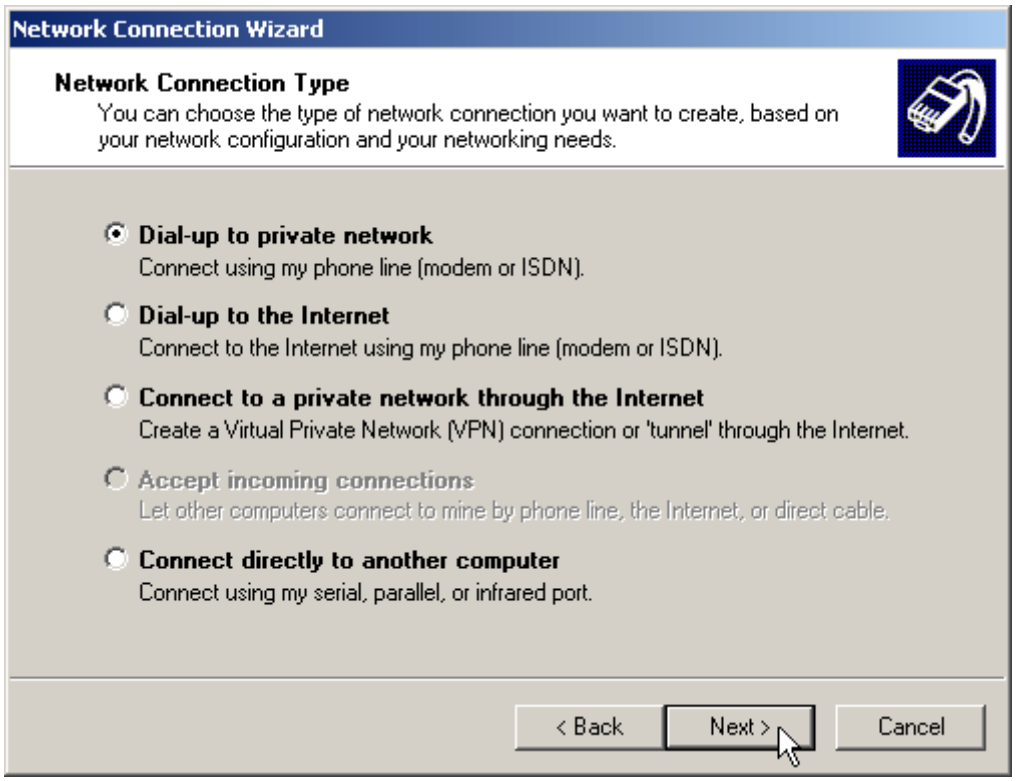
Step 3

In the Welcome to the Network Connection Wizard window, click **Next**.

Network Connection Wizard
Welcome to the Network Connection Wizard
Using this wizard you can create a connection to other computers and networks, enabling applications such as e-mail, Web browsing, file sharing, and printing.
To continue, click Next.
< Back
Next >
Cancel

Step 4

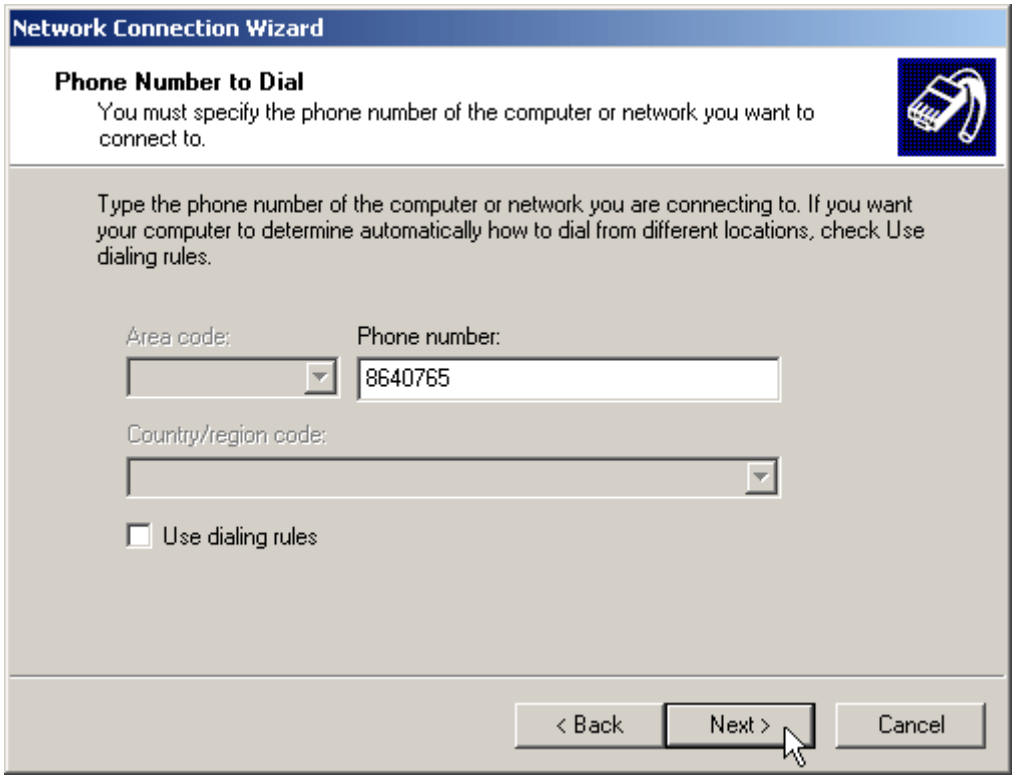
The New Connection Type window will have several selections. Choose **Dial-Up to private network**, then click **Next**.


Network Connection Wizard
Network Connection Type
You can choose the type of network connection you want to create, based on your network configuration and your networking needs.
Dial-up to private network
Connect using my phone line (modem or ISDN).
Dial-up to the Internet
Connect to the Internet using my phone line (modem or ISDN).
Connect to a private network through the Internet
Create a Virtual Private Network (VPN) connection or 'tunnel' through the Internet.
Accept incoming connections
Let other computers connect to mine by phone line, the Internet, or direct cable.
Connect directly to another computer
Connect using my serial, parallel, or infrared port.
< Back
Next >
Cancel

Step 5

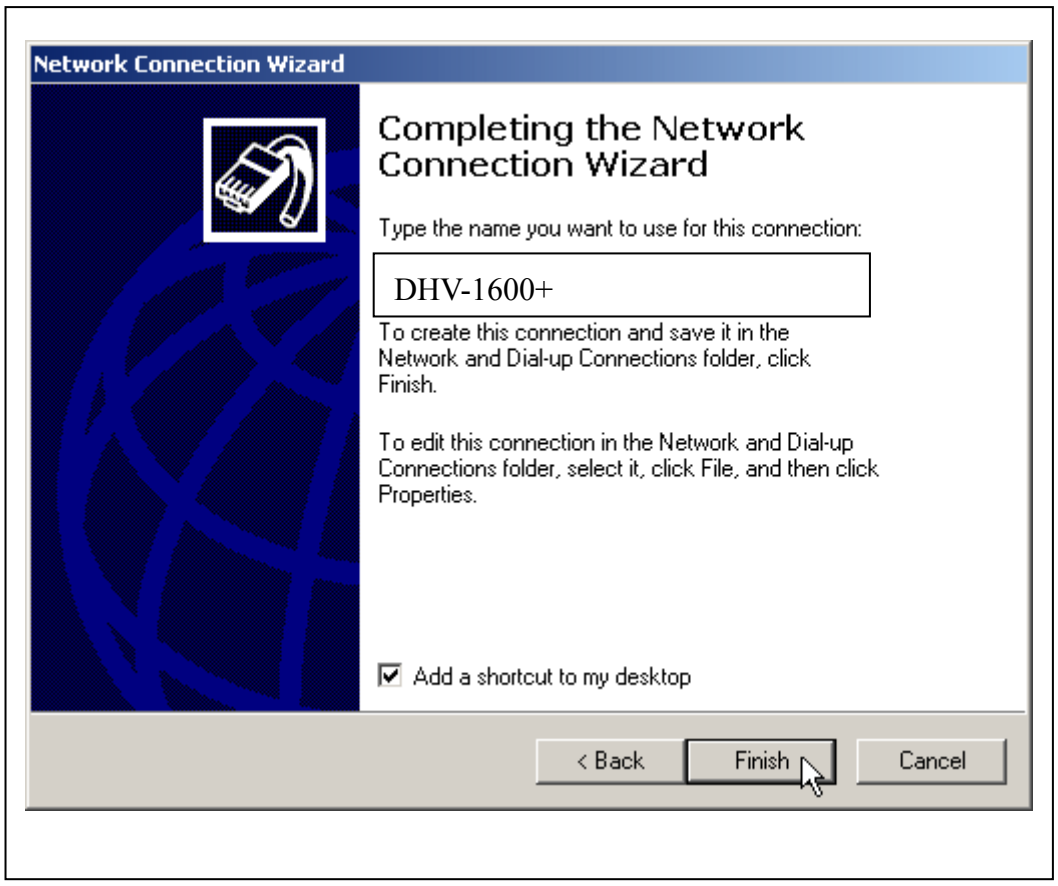
For the Phone Number to Dial window, first choose a local service number from the following Web sites...

Please type in the number you have chosen and click **Next** to continue.


Network Connection Wizard
Phone Number to Dial
You must specify the phone number of the computer or network you want to connect to.
Type the phone number of the computer or network you are connecting to. If you want your computer to determine automatically how to dial from different locations, check Use dialing rules.
Area code:
Phone number:
8640765
Country/region code:
Use dialing rules
< Back
Next >
Cancel

Step 6

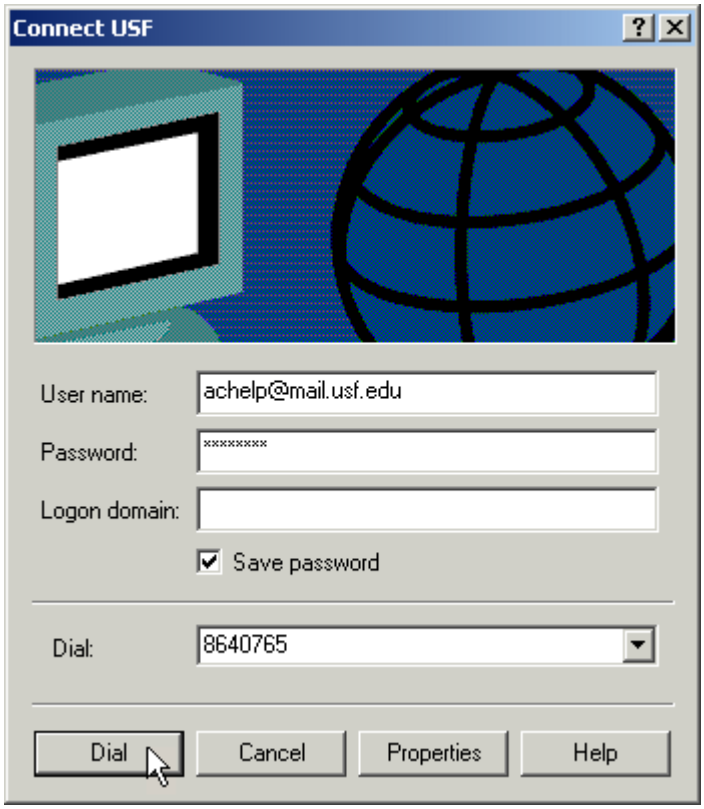
In the Completing the Network Connection Wizard window, check the box labeled **Add a shortcut to my desktop**, then click **Finish** to close the wizard, and therefore, start the Connect window.


Network Connection Wizard
Completing the Network Connection Wizard
Type the name you want to use for this connection:
DHV-1600+
To create this connection and save it in the Network and Dial-up Connections folder, click Finish.
To edit this connection in the Network and Dial-up Connections folder, select it, click File, and then click Properties.
Add a shortcut to my desktop
< Back
Finish
Cancel

Step 7

Before dialing, the Connect window has several text fields to fill. Your **User name** will be your entire official USF e-mail address and

the **Password** will be the password to that e-mail address, respectively. In addition, you may check the **Save password** box and/or customize the phone number (to disable call-waiting or other features) if you prefer.

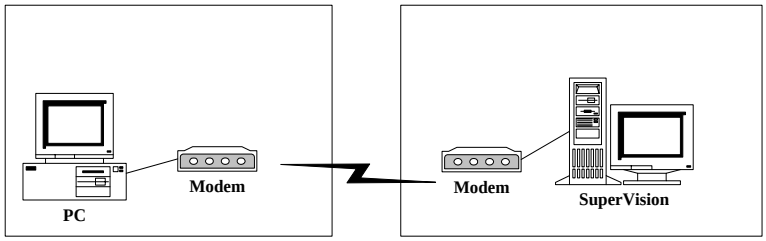


Step 8

Your connection setup is now complete! If you have not payed for USFBasic Dial-up yet, please do so at the **iConnect Marketplace**. Qualified faculty must register through the **Faculty Modem Pool Eligibility page**. Both Web addresses are respectively listed below for your convenience.

After successful connect, the user's PC will be assigned an IP Address from the RAS (Remote Access Server) of ISP.
Users can open the Web Browser now, enter HyperVision DVR IP Address (Refer to 4-8), and wait for several seconds (time for loading program) to start remote monitoring function.

4-8-3、Remote Monitor when DHV-800+/DHV-1600+ is connected to the Internet by a modem



Similar to dialing up to ISP (Internet Service Provider) for connecting to internet described in the previous section, direct dial-in access is another way to let users remotely connecting to HyperVision DVR series products which is equipped with a modem device. The above figure depicts the framework of this feature.

Additionally, the only slightly difference between these two methods is that direct dial-in access uses HyperVision DVR series products to replace the function provided by ISP RAS (Remote Access Server) to perform the procedure of connection.

[DVR site]

From the DVR site, please follow the steps below to finish the setting.

1. Login the setup page of the DVR system as an administrator, and then setup the network functions you required on “Network Setup” page, for example, enable remote monitoring, enable remote setup, ..etc.
2. Prepare a user account which has the permission of dial-in access. Or the default user “admin” has the permission already. Later on, from the remote site, you need this account to login the DVR system once the dial-in access is finished.
3. Check the BIOS setting of motherboard to make sure that the setting of onboard Serial Port 1” (Port A) is enabled (or Auto or 3F8).
4. Connect the modem to the COM1 interface of the DVR system.
5. Prepare a regular telephone line (PSTN), and then correctly connect the modem to the telephone line.
6. Remember to power on the modem and check if the status of modem is correct before power on the DVR system.

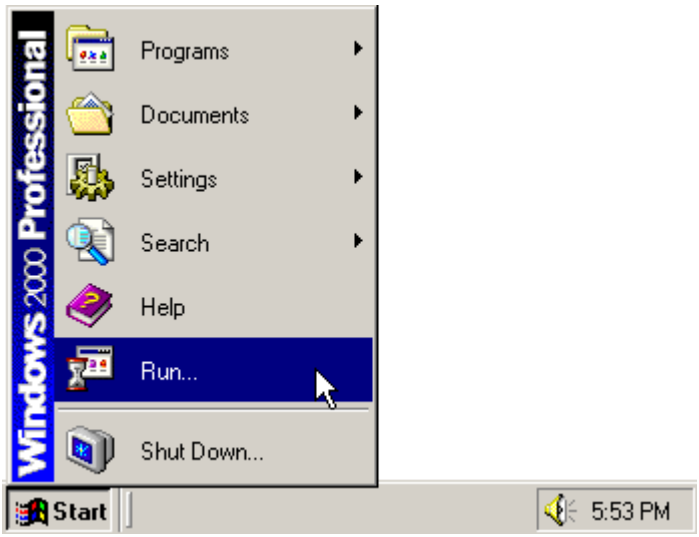
[Remote user site]

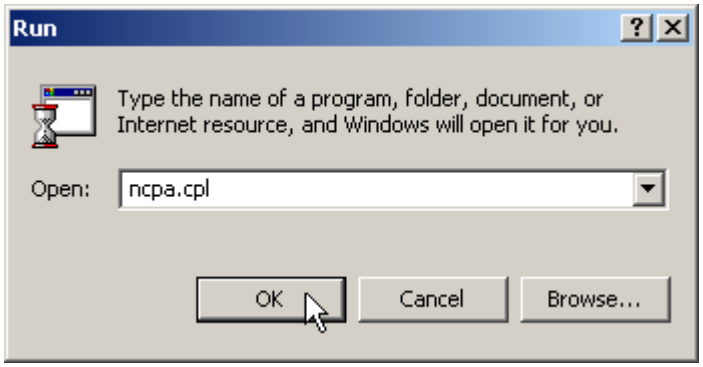
Please refer the following procedure (, which is extracted from documents provided by MicroSoft^{M} Inc. to finish the setting of user site where a window 2000 system is installed.

Windows 2000 Dial-Up Guide

Step 1

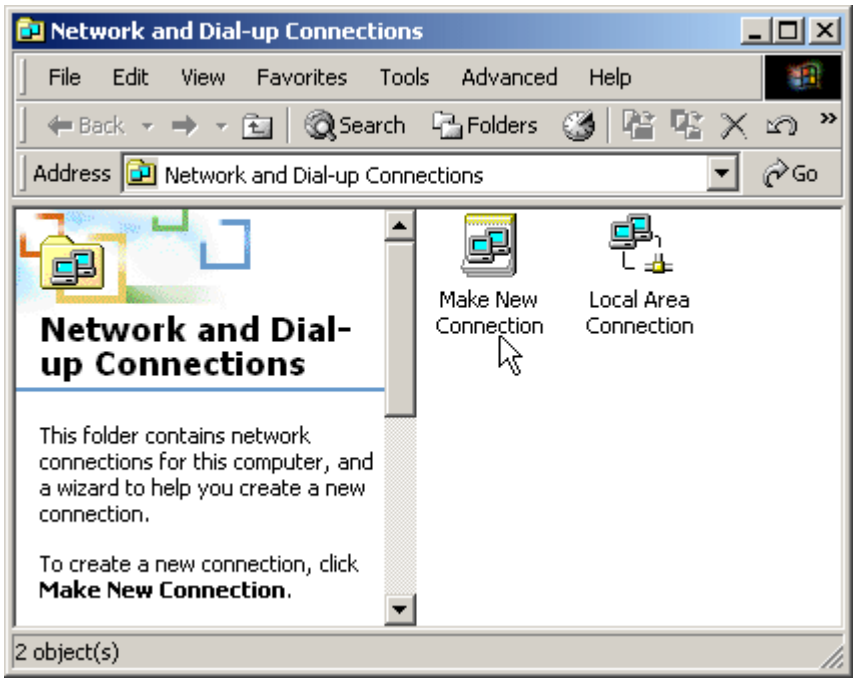
Click **Start** on your Windows taskbar, select **Run**. Type **ncpa.cpl** in the Open field then click **OK** to begin.





Step 2

In the Network and Dial-Up Connections window, open **Make New Connection** to start the Network Connection Wizard.


Network and Dial-up Connections
File Edit View Favorites Tools Advanced Help
Back Search Folders
Address Network and Dial-up Connections
Go
Network and Dial-up Connections
This folder contains network connections for this computer, and a wizard to help you create a new connection.
To create a new connection, click Make New Connection.
Make New Connection
Local Area Connection
2 object(s)

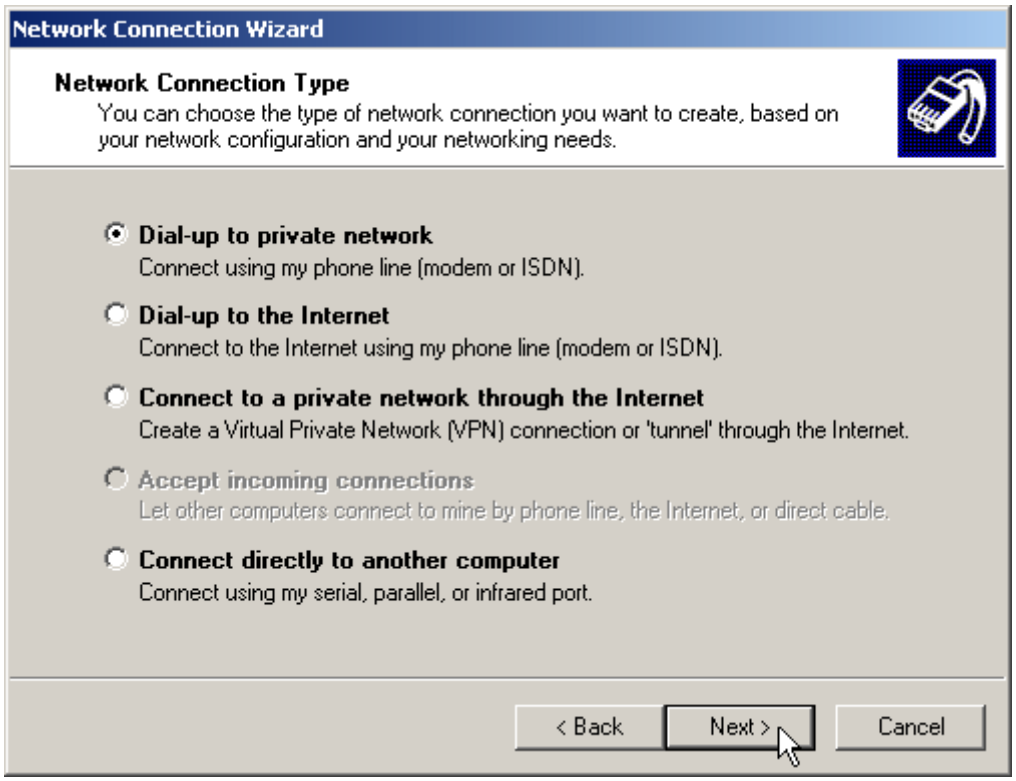
Step 3

In the Welcome to the Network Connection Wizard window, click **Next**.

Network Connection Wizard
Welcome to the Network Connection Wizard
Using this wizard you can create a connection to other computers and networks, enabling applications such as e-mail, Web browsing, file sharing, and printing.
To continue, click Next.
< Back
Next >
Cancel

Step 4

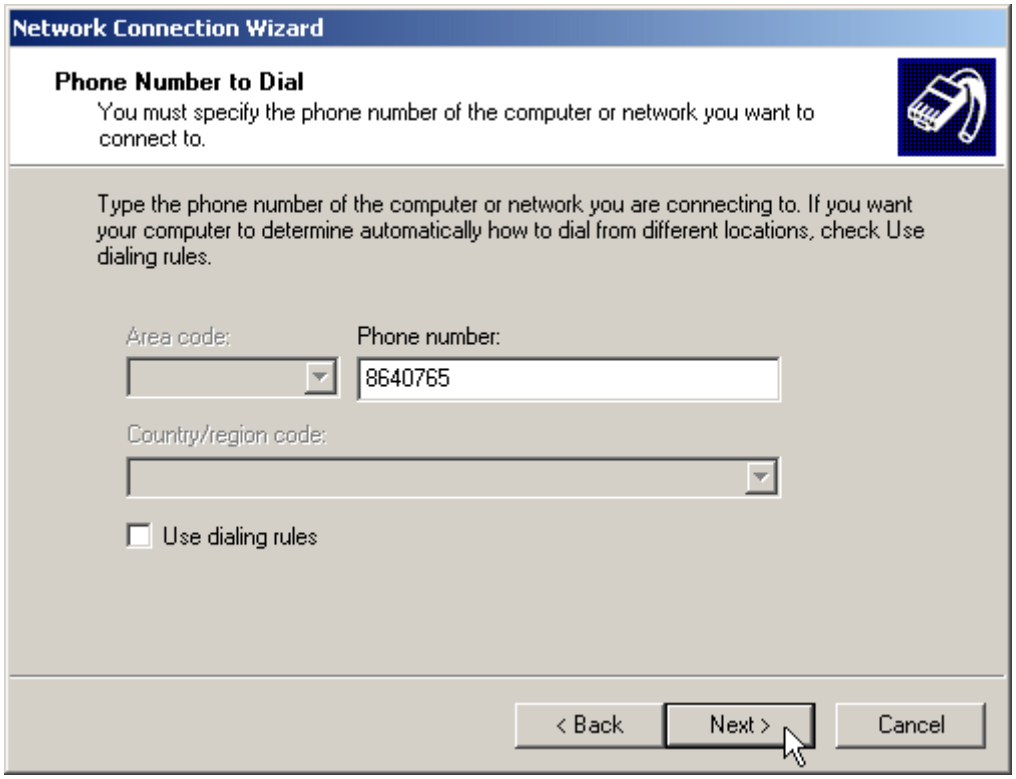
The New Connection Type window will have several selections. Choose **Dial-Up to private network**, then click **Next**.


Network Connection Wizard
Network Connection Type
You can choose the type of network connection you want to create, based on your network configuration and your networking needs.
Dial-up to private network
Connect using my phone line (modem or ISDN).
Dial-up to the Internet
Connect to the Internet using my phone line (modem or ISDN).
Connect to a private network through the Internet
Create a Virtual Private Network (VPN) connection or 'tunnel' through the Internet.
Accept incoming connections
Let other computers connect to mine by phone line, the Internet, or direct cable.
Connect directly to another computer
Connect using my serial, parallel, or infrared port.
< Back
Next >
Cancel

Step 5

For the Phone Number to Dial window, first choose a local service number from the following Web sites...

Please type in the number you have chosen and click **Next** to continue.


Network Connection Wizard
Phone Number to Dial
You must specify the phone number of the computer or network you want to connect to.
Type the phone number of the computer or network you are connecting to. If you want your computer to determine automatically how to dial from different locations, check Use dialing rules.
Area code:
Phone number:
8640765
Country/region code:
Use dialing rules
< Back
Next >
Cancel

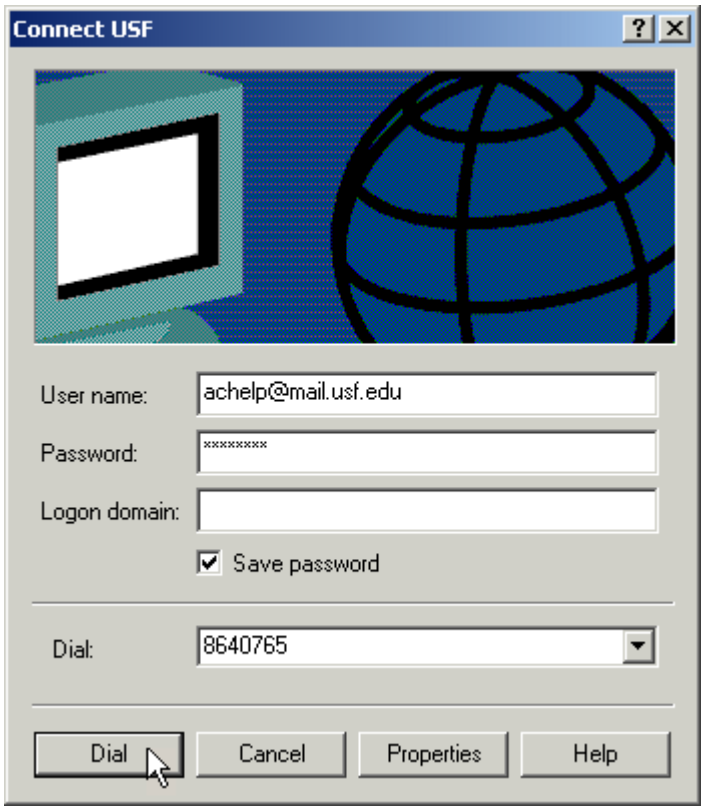
Step 6

In the Completing the Network Connection Wizard window, check the box labeled **Add a shortcut to my desktop**, then click **Finish** to close the wizard, and therefore, start the Connect window.

Network Connection Wizard
Completing the Network Connection Wizard
Type the name you want to use for this connection:
DHV-1600+
To create this connection and save it in the Network and Dial-up Connections folder, click Finish.
To edit this connection in the Network and Dial-up Connections folder, select it, click File, and then click Properties.
Add a shortcut to my desktop
< Back
Finish
Cancel

Step 7

Before dialing, the Connect window has several text fields to fill. Your **User name** will be your entire official USF e-mail address and the **Password** will be the password to that e-mail address, respectively. In addition, you may check the **Save password** box and/or customize the phone number (to disable call-waiting or other features) if you prefer.



Step 8

Your connection setup is now complete! If you have not payed for USFBasic Dial-up yet, please do so at the **iConnect Marketplace**. Qualified faculty must register through the **Faculty Modem Pool Eligibility page**. Both Web addresses are respectively listed below for your convenience.

Users can open the Web Browser now, enter HyperVision IP address(see Note), and wait for several seconds (time for loading program) to start remote monitoring function.

[Note]
After successful connecting to the modem, the PC will be assigned an IP Address, which is the successor number of HyperVision's IP Address. For example, if the IP address of HyperVision is 140.113.17.154, then 140.113.17.155 will be assigned to the PC. Therefore, you need to use this IP address in IE browser in order to connect to the DVR system.

4-8-4 Remote Setup

Remote Setup allows you to configure most functions of the DVR via another PC remotely. Please refer to chapter 5-6 for remote operation.

4-8-5 Network Share

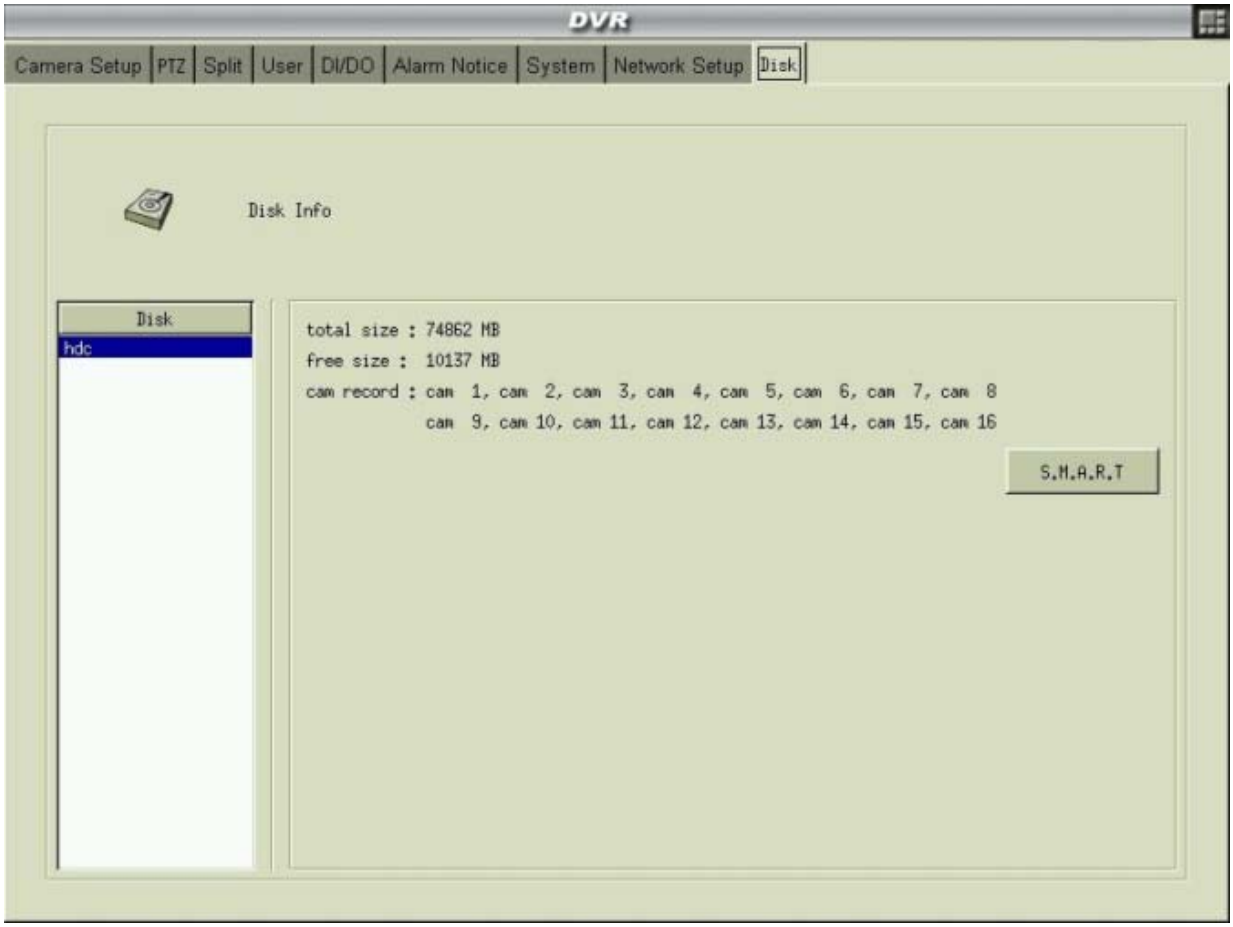
This function allows you to find the DVR in the network and copy the recorded files to your PC remotely.

1 Enable ”Network Share Status”.
2 Give a name for this DVR for identification in the network.
3 Enter the Workgroup.
4 Give a password for remote access of the files.
5 Click on the camera numbers to be shared in the network.

Please refer to chapter 5-7 for remote operation.

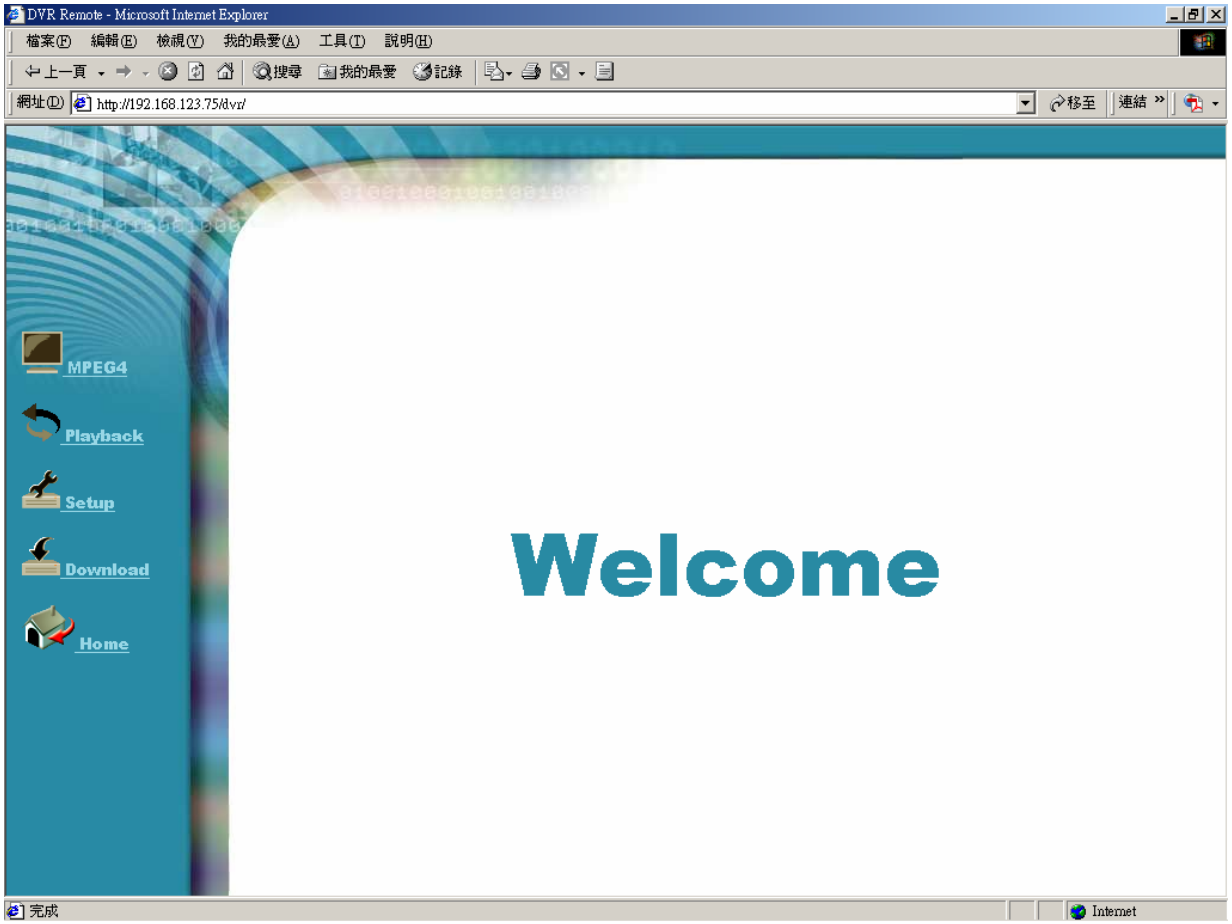
4-9 Disk

This function allows you to check disk status easily and precisely through pressing the S.M.A.R.T



5. Remote Operation

HyberVision DVR allows you to monitor and control the system via network. Open an IE browser on the remote PC and enter the IP address of the DVR to see the screens below:

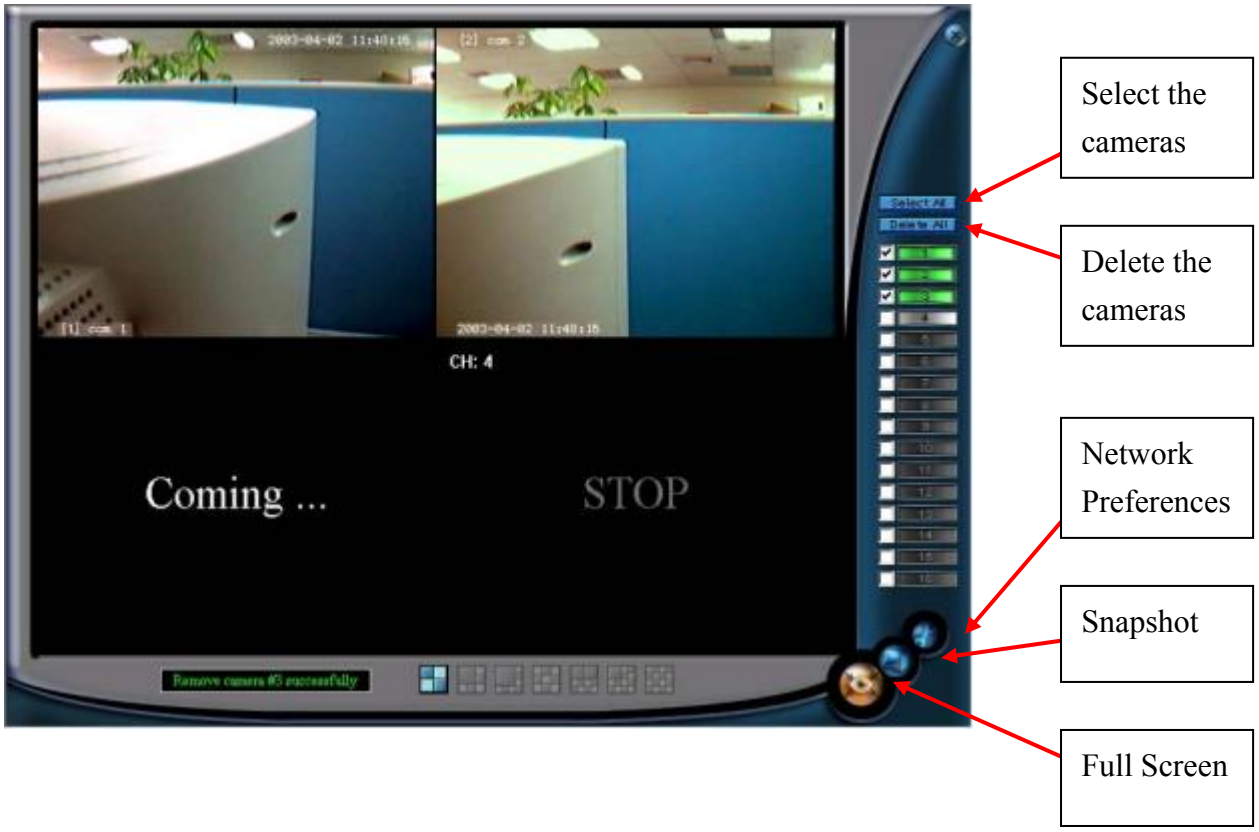


5-1 Download Player

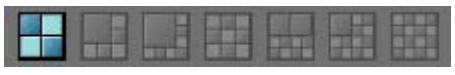
The remote PC needs to install the MPEG-4 player in order to monitor, playback, and control the DVR. The player can be downloaded from the DVR directly.
Click the “Download” icon and follow the instructions to install the player.

5-2 Remote Monitor via MPEG4

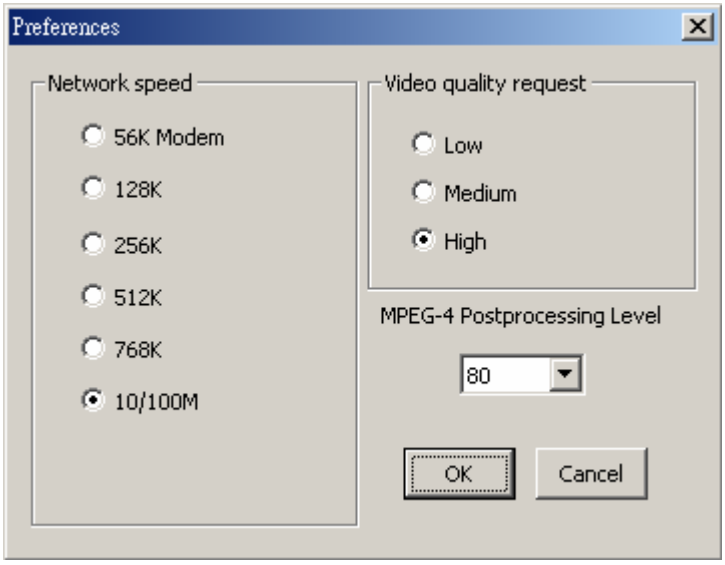
Click the **MPEG4** icon to see the following figure.



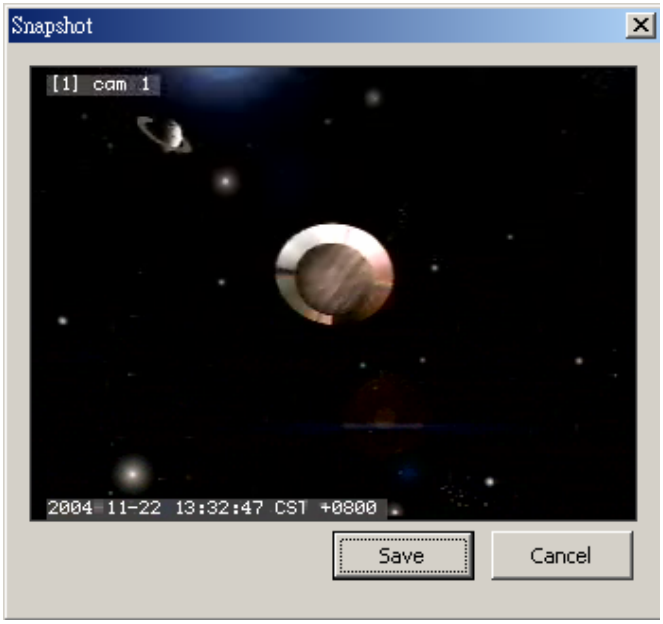
- Select the cameras to be displayed on the right of the screen.
- Click on the corresponding icons on the bottom of the screen to view difference display mode.



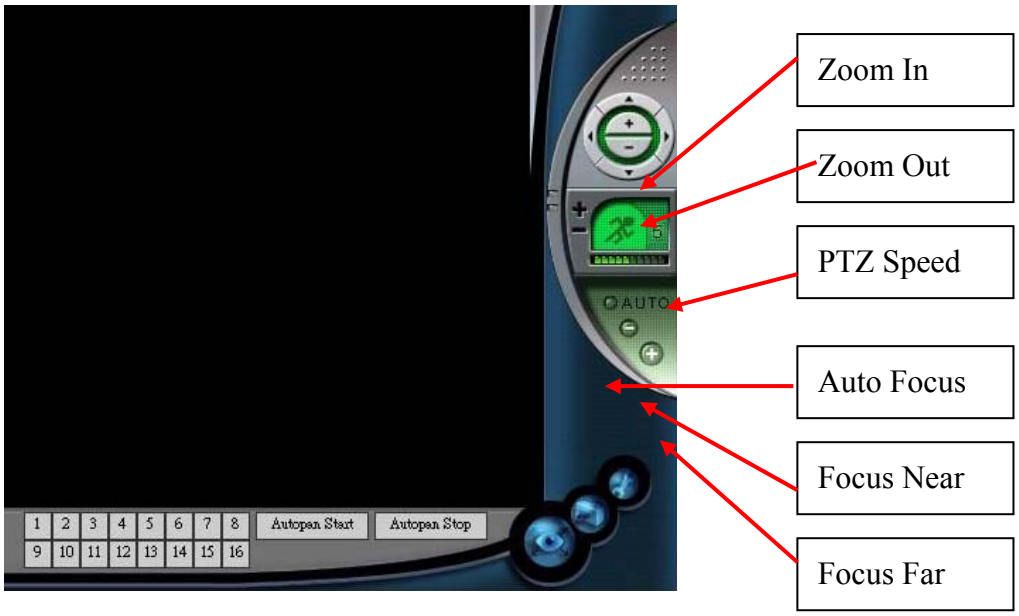
- Click the icon (Network Preferences) on the lower right of the screen to select the suitable network setting based on the actual environment. It will pop up a screen as follows.



- You can click the icon (Full Screen) to enlarge the monitoring screen display. If you click it again, it will be back to the normal monitoring screen.
- You can select one of the pictures and click the icon (Snapshot) to save as a JPEG file.



- If you want to operate the PTZ function, click on the camera screen directly. The screen will enlarge and a PTZ control panel will appear on the right as below.



Zoom In

Zoom Out

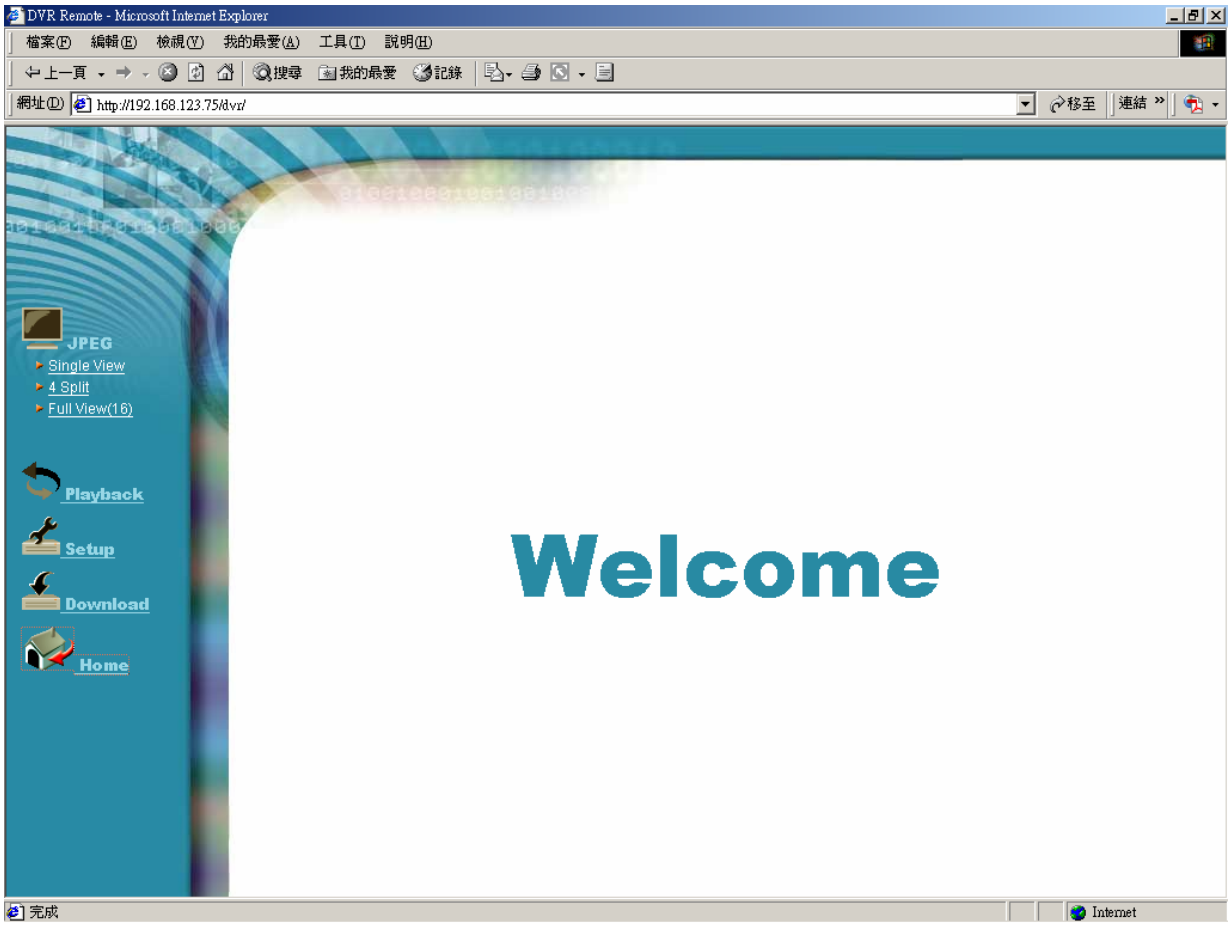
PTZ Speed

Auto Focus

Focus Near

Focus Far

5-3 Remote Monitor via JPEG



(1) Click **Single View**, **4 Split** or **16 Split**.

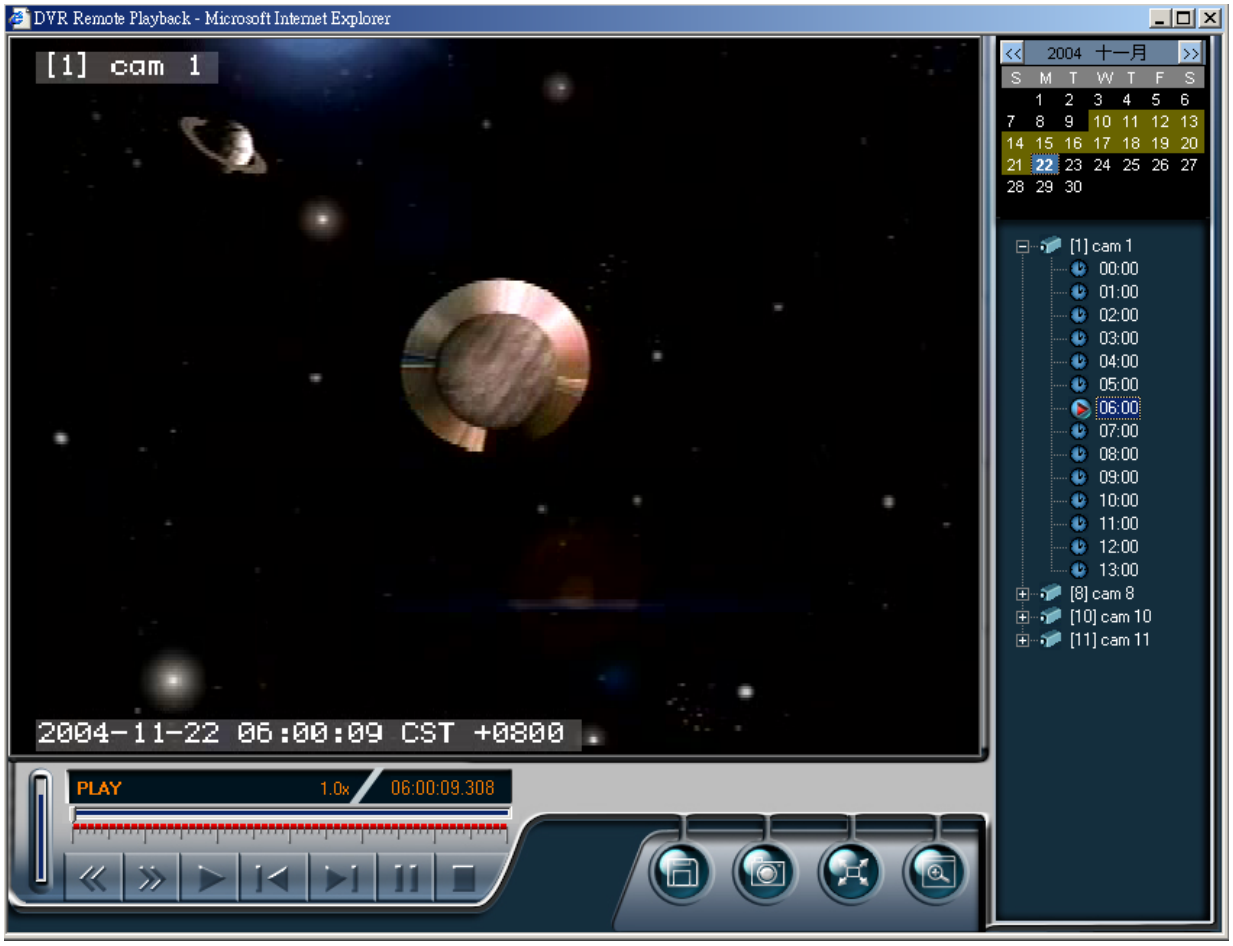
(2) Select camera(s).

(3) Start to monitor.

1. Administrator must enable the JPEG remote monitor function first.
2. The remote PC must have Java VM installed to see the pictures.

5-4 Remote Playback

Click the **Playback** icon to see the following figure.



(1) Select a date on the calendar.
(2) Select a Camera.
(3) Select a recording duration.
(4) Click on the Playback icon to start playback.
(5) You can select various playback speeds or drag the time bar directly.

Speed (－): To reduce the playback speed.

Speed (＋): To increase the playback speed.

Playback

Previous 1 min: To rewind 1 minute.

Next 1 min: To forward 1 minute.

Pause

Stop

Save video clips

Save JPEG files

Enlarge to full screen

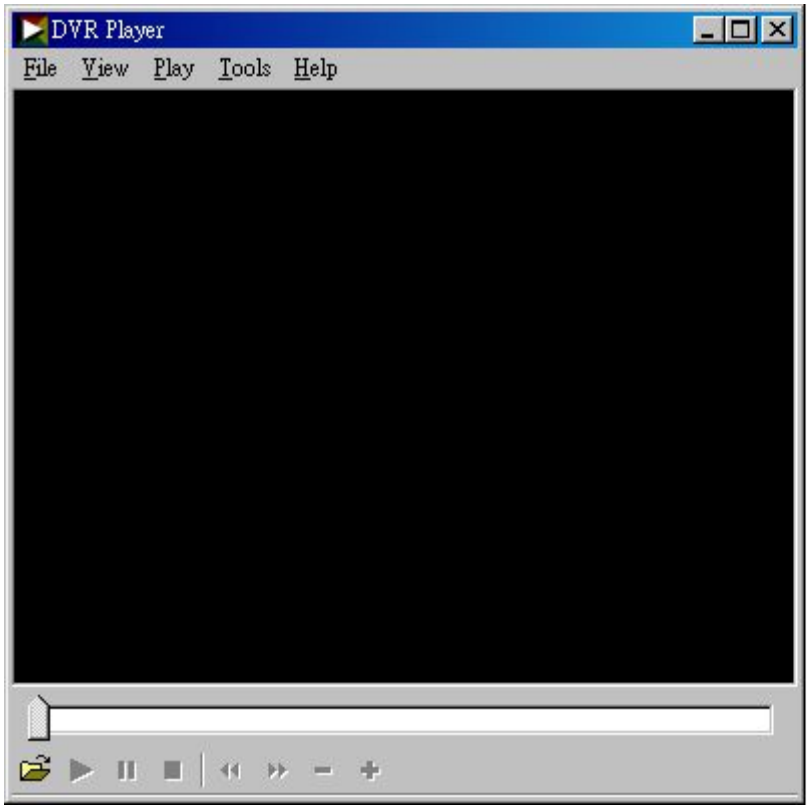
Adjust video size

5-5 DVR Player

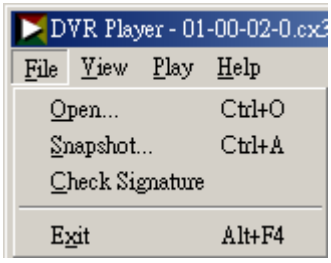
The DVR Player is used in three applications:

1. To watch the video clip downloaded from the DVR;
2. To watch the video clip burned on the CD-R/RW;
3. To verify the Digital Signature of the video clip.

You can find the DVR Player application in the program files.



- Click on the icon on bottom right to select a video clip.
- You can check the digital signature in File -> Check Signature.

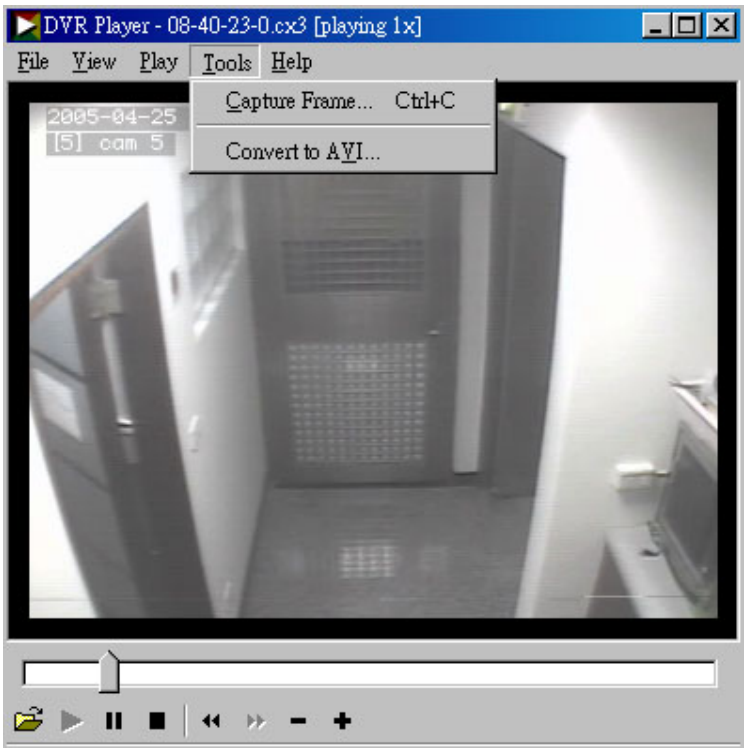


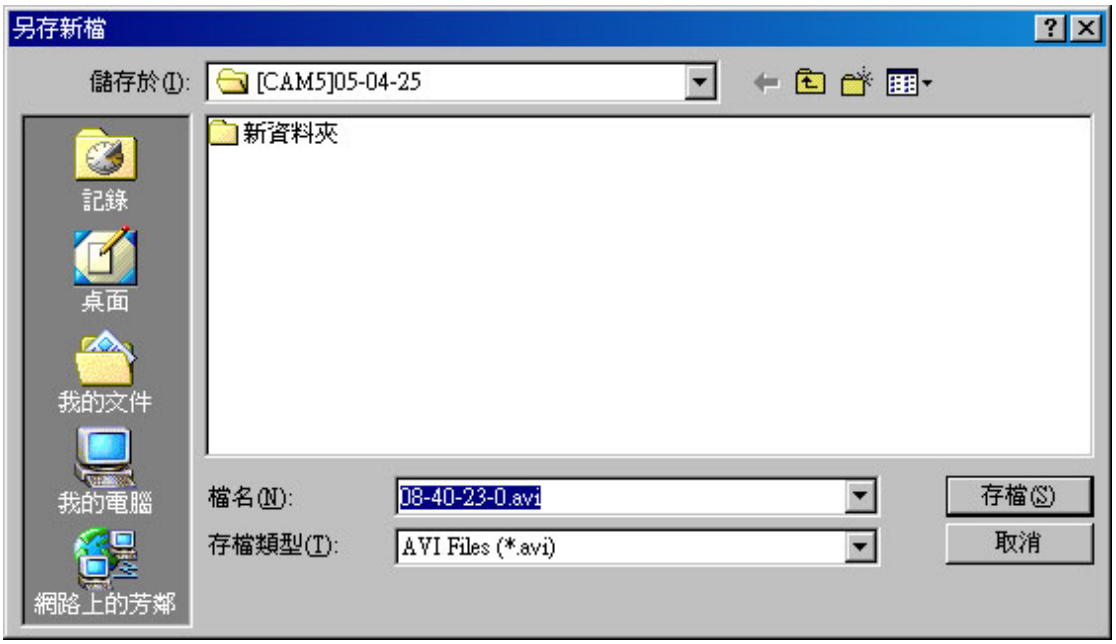
♦ **AVI Format Export:**

This function provides you to transform the download files from CX3 format to AVI format.

a. Open a download file.

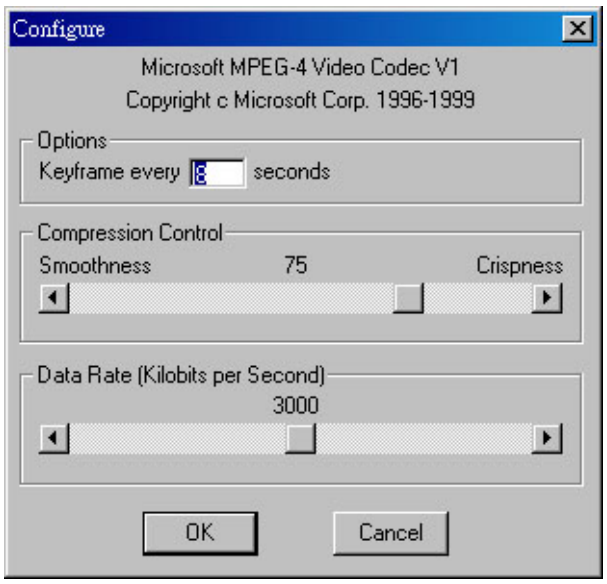
b. In the "Tools' bar, select " **Convert to AVI**" and then select the path you want to save the AVI file and key in the AVI file name.



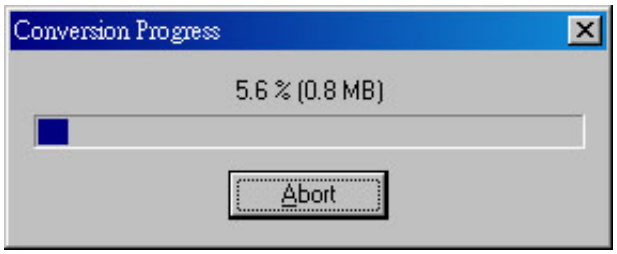


c. Select the transforming format. Here we choose Microsoft MPEG 4 Video Codec.

d. Select transforming parameters and it will influence the file's quality and size.



e. Enter " OK" and then it will show the transforming status.



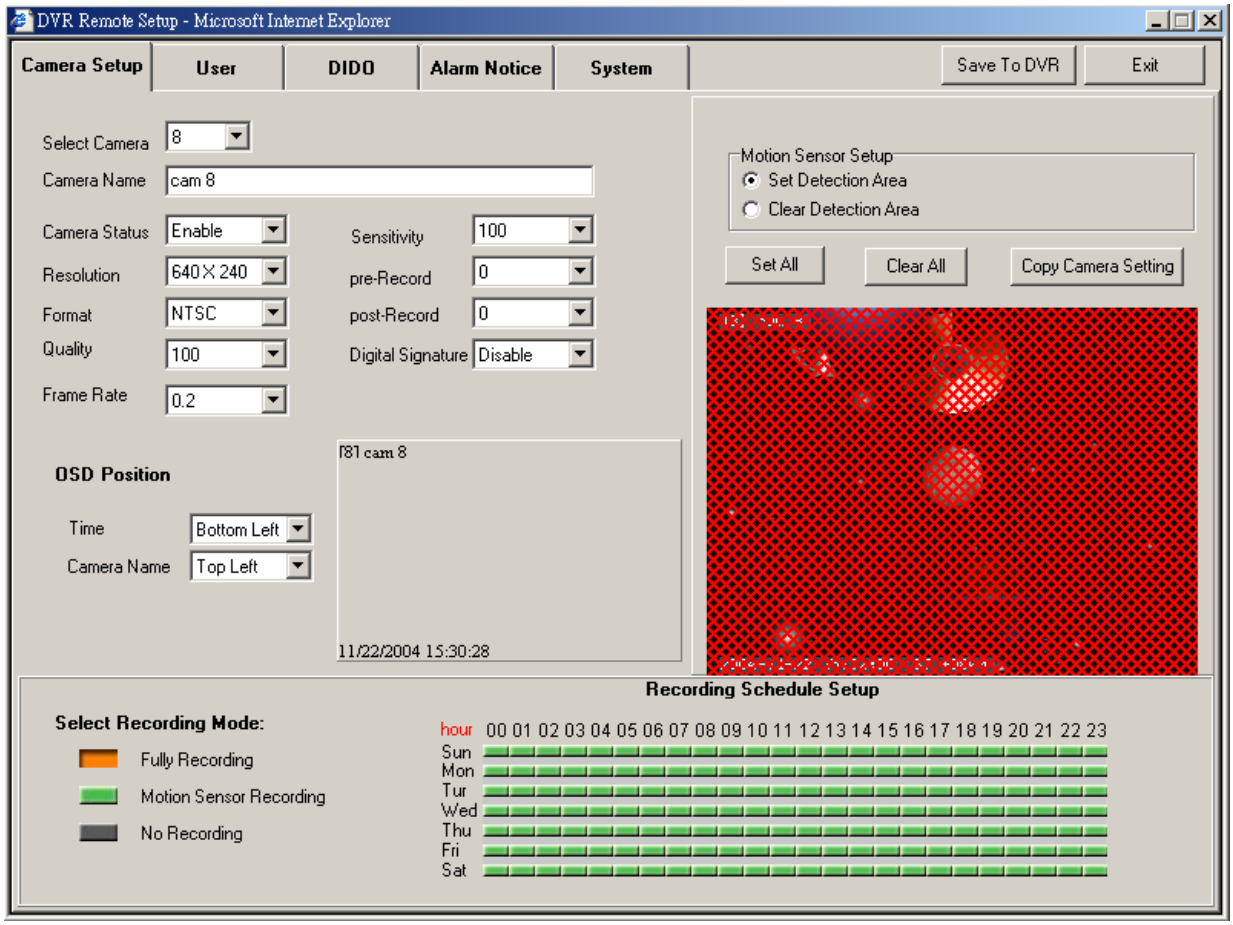
Note:

*The codec you choose are not all workable but it will prompt a warming message if it is not workable.

*The time of transforming format will depend on the file size and the codec you choose.

5-6 DVR Remote Setup

Click on the Remote Setup to see the screen below.



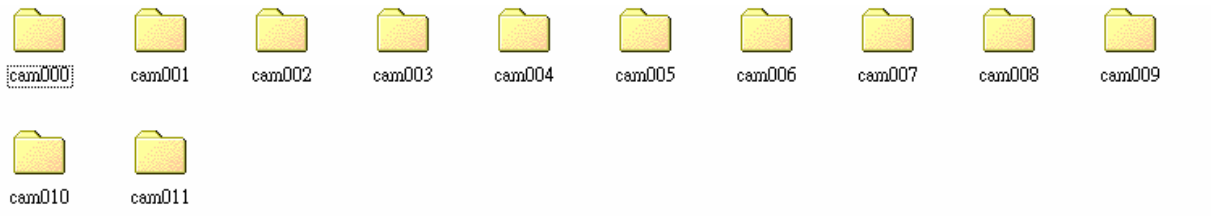
The operation is very similar to the “System Settings” in Chapter 4.

Adjust the settings and click “Save To DVR” icon on the upper right to take effect.

5-7 DVR Remote Backup

If the Network Share function is enabled, you can copy the video data of the DVR to any Windows PC in the same network.

(1) Search computer in the network by the DVR name or IP address.
(2) Enter the username: **dvrbackup** and password you set in chapter 4-8-3.
(3) Copy the files to hard disk or storage for backup.



6. Appendix

A. Compatible PC Hardware

Motherboard

BrandName	Model	Chipset	# of PCI slot	on-board LAN
ASUS	**P4P800S**	Intel848P	5	Support
ASUS	**P4P800-SE**	Intel865PE	5	Support
GIGABYTE	**GA-8I848P-L**	Intel848P	5	Support
GIGABYTE	**GA-8I848P-G**	Intel848P	5	Support
GIGABYTE	**GA-8I848E**	Intel848P	5	Support
GIGABYTE	**GA-8IPE1000-L**	Intel865PE	5	Support
GIGABYTE	**GA-8IPE1000-L GT**	Intel865PE	5	Support
GIGABYTE	**GA-8IPE1000 Pro**	Intel865PE	5	Support
GIGABYTE	**GA-8IPE1000 Pro2**	Intel865PE	5	Support
GIGABYTE	**GA-8IPE1000-G**	Intel865PE	5	Support
GIGABYTE	**GA-8IPE1000**	Intel865PE	5	Support
SuperMicro	**P4SPE**	Intel865PE	5	Support
SuperMicro	**P4SPE**	Intel865PE	5	Support
SuperMicro	**P4SPA+**	Intel865G	5	Support
ECS	**ESC 865PE**	Intel865PE	5	Support

VGA

nVidia TNT2/GeForce2/GeForce4/MX4000/FX5200

Network Interface Chip

Realtek 8139C, 8100B

Kinnerreth-R

Intel 82562EZ

Marvell 8001

Intel 82547EI

ATA Extension Card

Promise Ultra 100 TX2

Promise Ultra 133 TX2

HighPoint Rocket 133

SCSI Card

Adaptec 29160, 39160

Tekram: DC-390U, DC-390U2D, DC-390U2B, DC-390U2WE, DC390

ACARD

RAID0/1 support

ACS 7500

RAID0/5 support

ACS 7630

RAM requirement

512MB for SV1012 and SV1016

256MB for all the rest series.

DVD Burner

DVR Burner	Disk Type Support	Remarks
Pioneer	*DVD+RW *DVD-R *DVD-RW	Not support Pioneer DVD+R
Asus	*DVD+R *DVD+RW *DVD-R *DVD-RW	

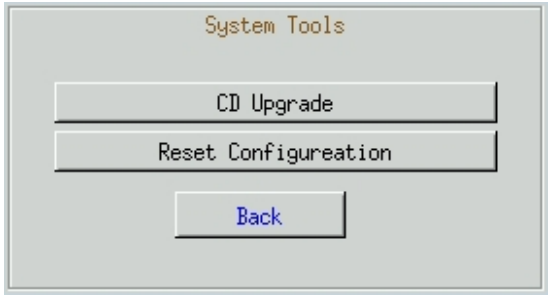
B. Main Menu

Every time you start the DVR, you shall see the Main Menu for advanced system functions.

- **Start DVR:** To start the DVR normally.
- **Play Recorded Video:** Playback only. Be sure to enter admin user password first when you want to enter the Play Recorded Video icon. This option is used to playback a hard disk without rewriting it with new recording contents.
- **Disk Tools:** Be sure to enter admin user password first when you want to enter the Disk Tools icon.

S.M.A.R.T Diagnostic: To examine the internal record of the hard disk.
Disk Scan: To check the hard disk status using Linux tools.
Disk Manager: To assign cameras to hard disks or to format hard disk.

- **System Tools:**



CD Upgrade: To upgrade the software using upgrading CD.

Reset Configuration: To reset all the settings to factory default.

C. FAQ

1. Q. I have set the recording mode as motion sensor recording. But why the DVR still records a lot of video that has no motion at all?

A:

(1) The digital recording system is very sensitive. It can detect the tiniest motion that human eyes cannot perceive. You can lower the sensitivity setting in camera setup menu.

(2) Flickering fluorescent lights (when traditional 120 Hz ballast are used) or TV (or computer) screen can be the motion source. In this case, adjust the motion detection area so that these flicking sources will not be detected. It is recommended not to align the camera directly at fluorescent lights, TV, or computer screens. The use of better-quality fluorescent lights (with electronic ballast), monitors, and the cameras can be considered.

(3) When cameras are installed, please make sure the quality of cables, connections, and workmanship. Sometimes interference could cause the image unstable. Avoid placing the system close to a compressor (fridge), or to a motor (washing machine) that might cause magnetic interference.

2. Q: What will happen if there is a power outage (cut)? Do I have to do anything?

A: If a power outage occurs, the last file will not be closed properly. Therefore, up to 10 minutes of data might be lost. It is recommended connecting the system to an Uninterruptible Power Supply (UPS). This will help to avoid shortening the system life span and partial data loss caused by the instability of power supply.

When the power returns, the system will automatically re-boot, restore data and go back to the normal operation in approx. 1 minute.

3. Q: Why the remote monitor not working?

A:

(1) Using the windows command PING to check if the network connection is ok.

(2) Turn of proxy setting off.

(3) Make sure you have Java VM installed (in JPEG mode) or Player installed (in

MPEG4 mode).

(4) Check security setting in IE browser is not too restricted. The active X option must be enabled.

4. Q: How to check the log file of the DVR?

A: The log file can be seen from remote PC using IE browser. Suppose the DVR IP address is 192.168.123.12, type http://192.168.123.12/log/dvrlog.php on a remote PC to see the log.

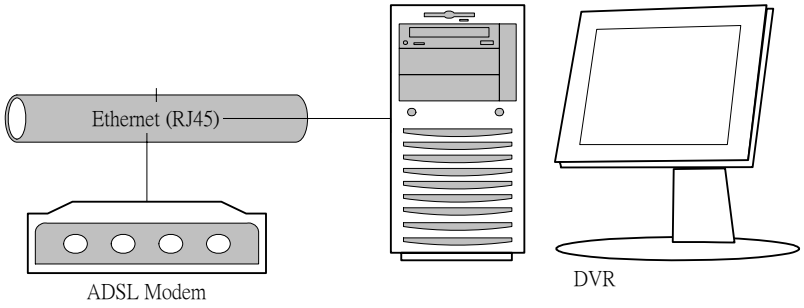
5. Q: How to capture the snapshot of the whole screen?

A: It can be done from remote PC using IE browser. Suppose the DVR IP address is 192.168.123.12, type http://192.168.123.12/rmapi/misc/screen-snapshot on a remote PC to see the picture.

D. Internet Connection

D-1: IP address is used by one DVR only

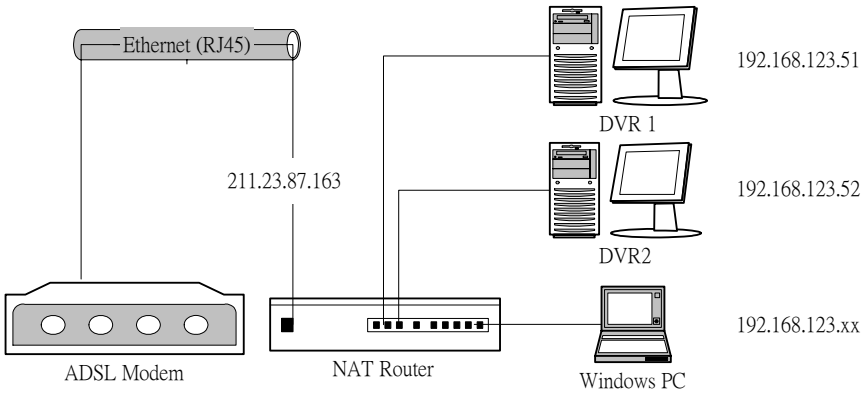
Assume the static IP address you get from ISP is 211.23.87.163.
When
(1) The IP address is not used by any other devices, and
(2) ISP does not require user name and password to connect,
You can connect like the following figure:



In this case, just follow the instructions in section 3-6-7 and section 4-2 to make the DVR on Internet.
User from Internet can use http://211.23.87.163 to connect to the DVR.

D-2: IP address is shared by more than one devices

Assume the static IP address you get from ISP is 211.23.87.163.
When
(1) The IP address is shared by more than one devices, or
(2) ISP requires user name and password to connect,
You can connect like the following figure:



In this case, you will need an NAT router to connect to the high-speed modem. Please refer to the user manual of your NAT router to translate DVR1 (192.168.123.51 port 80) to a port of 211.23.87.163, for example, port 8001. Similarly, translate DVR2 (192.168.123.52 port 80) to another port of 211.23.87.163, say, port 8002. You also need to set the user name and password on this router in order to successfully connect to ISP. Follow the instructions in section 3-6-7 to set the IP address of DVR1 as 192.168.123.51.

Users from Internet can now use http://211.23.87.163:8001 to connect to DVR1 and use http://211.23.87.163:8002 to connect to DVR2.

E. Maintenance

Avoid placing the system in a high temperature or a high humidity environment and also keep away from the place with frequent vibrations. Operate the system under stable voltage. If possible, operate the system with a UPS (Uninterruptible Power Supply)

F. Warranty

J&S United Technology Corp. offers one-year warranty from the date of purchase against defects in materials or workmanship, when the SuperVision DVR kits are installed and operated in accordance with the instructions given in this user's manual and is in normal use.

Please note that the warranty is not covered under the following conditions:

- Damage caused by natural disasters
- Damage caused by transportation
- Damage caused by installing, repairing, operating and storing NOT according to instructions of this user's manual
- The product has been repaired and serviced by non-***HyperVision*** authorized personnel.

G. Customer Service

Please contact your supplier for service when you have problems with your goods.

Should you have any questions regarding ***HyperVision*** kits, welcome to contact us at http://www.jscctv.com or e-mail us at info@jscctv.com